

## 3158

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 gaatctcctc caaggaagtc ccaggaggat ggggaccagg aaggctgtgg acccccatct 180  
 ccaggggggcc ttcccagcct gatccctgtc ctccaagttc tggaggaggc cgctgtaggg 240  
 tctggctgag cttcccaccc actttccctg gtcccaatcc tttcttggtc tatacccagc 300  
 tggggttgct gccctgaacg aactgcgtgt ggggcccggca catcctagca ggcagcccct 360  
 ggcgcctgct gcctcaggga tgcctcaacc accctcgttc tcctcgcagt ggccctggct 420  
 cccacccccca tggagaaccc aaagtcttac tgtatataac tccagggtgac gtttctatat 480  
 ttatagcang ngttgaaaac ccacgtgttt tacacagaac caccctctcc aaccctctcc 540  
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3159

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 cgccctccgg gtcctgttaa nnntccttcc gnggttcacc tacggaaacc ttgttacgac 120  
 ttttacttcc tctagatagt caagttcgac cgtcttctca gcgtccgcc agggccgtgg 180  
 gccgaccccg gcggggccga tccgagggcn tcactaaacc atccaatcgg tantagcgac 240  
 gggcgggtgtg tacaaaaggnc agggacttaa tcaacgcaag nttatgaccc gcacttactg 300  
 ggaattcctc gttcatgggg aataattgca atccccgatc cccatcacga atgggggttca 360  
 acgggttacc cgcgcctgcc gcgtanggta ggcacacnct gagccattca atgtangcgc 420  
 gtnccagcccg gacatctaag ggatcaa 447

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cgtgaagcaa gtgnagatag atggccttgt ggtattnaag ataatcnaac attatcaaga 180  
agaagg 186

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 tnatcgtgtc tgtagatgaa ccacaagaac cccgctcnct gtggtgctcc acagagagggc 120  
 gnggctgggc gtggcgccca ctgagagcac caccataatg tgtgtctggg atacctctgt 180  
 tgtatnatta aagaggata tgcatttcta tggcattaaa attagtaaaa aaaaaatggg 240  
 ggccgnccat gct 253

<210> 3607  
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cagctgcggc acccctccca gcctaccctt cctgcgctgc cccagagcct gggaaggagg 120  
ccgctatgca gggtagcact gggnaacagg agaccacact gaggtcagc cctagccctn 180  
agcccacctg gggagtttac tacctgggga ccccccttgc ccatgcctnc agcttacaaa 240  
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ccctgagtaa ggctcagttt ctgagaatca atggnttccc ccaacccccca gcccagcctc 120  
agcccaatat ctctgacctc tggcctgatt cctagagggtg accagaattt aatgtcaggg 180  
cctaaatagt cattgagtag attgcattcc tattggtgcc ctccaagacc tcacttgtgc 240  
acctgtggga ccctgcccgg ggcagatagg acacgagcta aatgggtgct gggcaagtnc 300

## 3167

ctgtggacct gacaagggga cctgagcagt atgggaaggg gntttnggaa agnnagtncc 360  
caccntntgn aattnaagng gtggntntnn ntttaggng gtngccaaat ttggtntnag 420  
ttntntnnng aaggncataa ggttttttna aatttaaaag ggtttcnngg tgnaaaa 477

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cactctcatc tcacttttgt cactgttgca ggctcctgtt cagaccctcc atgggtctgag 180  
ncccctgga ttgattgggg acagatgatg ccagtnntca ttgagcagaa gtactggttt 240  
tgaattgtta acataaagac catccctatt tagaaaaaaa aaaa 284

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 tccctgtgct gaggggtgca gcagggcctg tggacacaaa gaagggggga caagaaggaa 180  
 cccgtgggct ggcacttcag gggtnctggac tgggggtttg catcatagaa agtgnaacct 240  
 gtgcgtttgt gtgncatgtc tgcgtacaca tggctgtntg tgcgtgcaat gaactgtgcg 300  
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 cctccgncgn ggccctgnctc cgccgncggn actnncggna gctttatcgc cagagtcct 120  
 gaactctnng tttcttttta atcccctgca tnggatnacc ggngtgcccn ancatgt 180  
 acgnanccnt agacaccagc taccgaaatn accancaagg acttaaaagg agaagaagga 240  
 agttntggna agaggcagaa aatgggaaga gacgcccttn 280

3172

&lt;210&gt; 3612

&lt;211&gt; 500

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

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&lt;221&gt; misc feature

&lt;222&gt; (138)

&lt;223&gt; n equals a,t,g, or c

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&lt;221&gt; misc feature

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&lt;221&gt; misc feature

&lt;222&gt; (239)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (293)

&lt;223&gt; n equals a,t,g, or c

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&lt;221&gt; misc feature

&lt;222&gt; (317)

&lt;223&gt; n equals a,t,g, or c

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&lt;221&gt; misc feature

&lt;222&gt; (376)

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&lt;221&gt; misc feature

&lt;222&gt; (409)

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## 3173

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 ggtctgcttc ggaccccggc cagaccccag cgaagcccct ctntgcccct ggacccagcc 120  
 ctctcgtgtc aggggtgtntt ggggtggacgc ttctcactcg tgcagacctg gctgcccgtg 180  
 gncccgctgg ctgcacaggg gaggttgac aggtcagcag agtggctgca gggccgggnt 240  
 ctgaaccgca ggcccatggg agacggggag gagatgggtct cttccacaac cancttaaca 300  
 gatggaggcg ctgaggncctc gggttcccct gggggcttgg ggnagaccac aagggttttag 360  
 ttcaaaaattc cagttnccca agtttttaag gaggttcccc ttgggcggnc aaatnggncc 420  
 caagtggttt ttagattctt aagggttgt nttgtcattt tggccattaa gnaagggggcc 480  
 aaagngctta agnaacttnc 500

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3174

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tctctcggag ttggtggagg ggaaaattgt ttgtgaacga tgctgcctcc cgagccatct 240
gctcaccgag aaacccagga tgggtggagt gaatgaagcc gtgcnnccca tgccagttcc 300
cccggggcag ccctcangtt gctgntggac ccgggggttn tntttgcang tgccttggtt 360
gtgggtnana aggatttgca tcaggagtat ccgtgccctg gaggatttct ncttttgna 420
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caatactggt cagctccttc gggacaaggg aagggtacag tggcgtgggc ctgactttcc 180
cgccagtgcc ccaactgnaaa gtttcttacg ggcataggcg atgnaggngn catgnatcca 240
gggaaggccg gggtnatttg tggctgnaat ttgaactncg tttgtgcctg gtnaacaatn 300
atngtgacct naatgncagg tccgaggtnn tgggtaacgn actggnagtg accggnnann 360
gnttggggnt gnaaagncc tttncgncaa nttttcctnn aaaggggcnc ttggtttttc 420
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gttgaattga agngtaagtt ctcgttgga gtgacngagg gtgcaaaaag tgtattnatt 180  
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cacattgccc ggtggctctgg ggtatggggg acaaggactg ggtggtnngg actgtccttg 240
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 aggctacaag gtgcagagaa gagagtagca gagttggcct ggactgtggn aggttgtttg 180  
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 gncactnngn anttggcanc nntgnacccn tanantgggn ccnnantntt nanangnnat 420  
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ctctccctna tttctccatt gtcttgactt ctagcaaatt tnctcatgag tgtacatacc 180  
actaagttgg ccaactcngat tantctggac aaaacgggnt gggactaagt ctgatttatt 240  
ntatggcagc atttggatta agactaatca acaggtactt ccaagtagca ggtgggggttc 300  
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ctagtccctga tggaaaactc agcctgctga atgtccagaa ctctgaccaa tcagtcattc 180
ctcctcttgt ggaagggtgc aaataaggcc atgggaatga aaagctgcat gtgttttgcc 240
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 cacggtgctt gacacttggg tccctgacgg ggagccagct tacttcggca taaagacctg 180  
 gggagctaca gatgcttatg tccacaggag ggccccacgg aatcctgtcc cggctggagg 240  
 ctgttcagaa ggatgctggg ggataagccc ttaggcacca gnttaggaca acttncaaga 300  
 accagggcc cgttgattgc aagttggcag ttttgataac ccttagagnc cccagnattn 360  
 cnnnttttgg gtnccenttt ttnnagcaaa ccccaaancc ngtttaaaaa ggaaaaaanat 420  
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 agcccggttct tccnanactn atctccctcc agcccctnnc attntagcca antttctnca 180  
 ctgmnnttac agttgttatt gnngtcccca actgttgtga attgccnngn ngtttcccct 240  
 tctgmnaaaa taatgtccat ccttcaaggg ctacctcaga tactgggtaa cttagtnatn 300  
 nctttgcagc caggagcggg ggttcggctg naantcttaa cacattgggg gncgtagtag 360  
 ggnngnttgg gtnaggacta ggggttttaa ccagccggng ggttttgggg gatttntttn 420  
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gggaaggcnt ttgnacagac ccnatantan caaggaaacg gactgnagct gacaaggaag 180
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ccagcggcac tngcnggggt taccgnttgn cttaccgntt ccggcctncc cccnaccgtt 300
ccccgangnt tccntttcgg ctggaacaac ggggcncaaa gggaggccaa nttgggggaa 360
agttgcgtnt tgnttcgggn cccangttag ggnttaagtt aacaacttnt ttgnccttca 420
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3208

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gatcnatgg cacagcgtgg aagaaaatca ggtttccta cagaatcggc cccaaaagaa 240
aacttatattt ggtaaattt ctggnttttag gtagnctga tatcaaccct catttgggct 300
gttttatcaa gctttggctn cagcagtntg gactngagtt cgtcacagtt nccgtaccat 360
ttgggaattt ttggtcncta ttccantcag tngacaattc gaantggntt tcttaggggn 420
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## 3211

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atataacatg atttattcat cttaaaaata ttttgtaag agtatctcta acttcattaa 180
taaaataaaa ttagaatgtt tttaatcttn ttcaaccaac ctaattttgt agtattccta 240
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gnaacatctt ttcagtcact ccatggatgt gcagctgctt agcagttgng gccaaattaa 360
nggggcaaaa ttgttagcan agtatgtaaa attatnccat tnncanattt ctnnaaatgn 420
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ctccaaacaa gagcttgaga ggcttgggng gtaaaaagat gtcgtttgtg aacattggga 180  
ttaaagaggc actcaagttt agctcctgct tccaagtaag agttgtaaac ttggatttca 240  
ntagcactta gaaacacttt ccagnagcca ncttagagtt ncagagtatg cgttgaggac 300  
actttaccct tctgggttac aggaaaagnt caggaanttg cctggacatg aaggcagtnn 360  
gttgccaga nccnnttttn aaatncngca agtaaaannt caggtggtag cctcgaactc 420  
tctgttgctc tnccaggtag cagttgccaa ttcattctca nagntntttt tggncctng 480  
ntnttcttag ccttnggnt 499

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## 3216

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3218

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&lt;222&gt; (537)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (546)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3627

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acctttnnct gagaggctga tgttgggggtc acttccccct gaactaaagt ccaggggctg 180
catgggtgag ggttgagtaa ctcagtactc taaggaggaa aggaagggga atatactg 240
ttagttaaca gtggttattc ctgtattctc tcttgtttgg attctactgg gggatttctt 300
tctttttttg agtctttatt gacattaggn atgagagata gaaacagggg gagagaggaa 360
gtanaattta aatgtgnatt ctttccacnt nttaccngaa ctcaaccgta tttttgggat 420
cnatanatcc ctacttttcc cctggattta ttncacaaaa tcttnggggg naccacaggn 480
aatttgggnac cctaaantcn ggttaaatta aggccnnggn aaggnggttc cgggggncaa 540
attccngggg gctttatttt ggg                                     563

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&lt;210&gt; 3628

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

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&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (56)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (62)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (65)

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&lt;220&gt;

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## 3220

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&lt;221&gt; misc feature

&lt;222&gt; (339)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3628

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tntgnatgtg aatgctgctg caggctgcc aaggacatgc atgctgctgg nacagtctgt 120
gcnanggggn cgacttaggt gcagggtgcc tgaatgcagg ttctatgcg tcactaggta 180
agagaactga ttatggaaaa ttgtaccatg ttctctccct gatctctgtg aagacaagtt 240
catatacctt aatcatttct attcatnctn gtaatttnag gttgggtccc nntggtttaa 300
aaaaaattct tttnttgggg gnacaaaatt tttgggggna ttttg 345
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&lt;210&gt; 3629

&lt;211&gt; 508

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

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&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (25)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (32)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (34)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

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&lt;223&gt; n equals a,t,g, or c

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3224

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gtgcagagtt gcatctccct ctggcntcct cacatgcttc tgctcagggc ccctgcccag 180
ccctcaatth agagttttctg gtctaattcc tgaccagtga tgtaattatt tatcttcctg 240
ccctnatcct ggggggtgcaa acagcaaact tggnaattnt gtttcaggct ttggnaaggt 300
tggttnccag tttccatctn cngtttagaa gaactgggng gntgcctgct gtggngttng 360
nggnttgngg ttcaagggtt cctgcttctg tgaantgncc aattntttgn ttcagggncca 420
gaacggtgag nagttgggga tttggctnag ggagggtaag ttggngtttc cagaggtnag 480
ntgngggngg angaanttag atggnagg 508
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3226

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3227

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<220>  
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## 3228

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agaaannatg gnnatggtgt taatgttaat ttctcaactt tgtgtttaaa tgtttaccat 180  
ttaacaaata tcattaagga aacagnttta aaattggaat ttcctaaaca ttatagtga 240  
tgtttntgaa taatttgcaa acaacagggtc aataggaaat aaaaatggaa tttttnaagt 300  
taatgtatta ttttttactt aaatccntta tcnttttgca gttgtcccga ctttattaga 360  
caggggnttg tnaataaacc tggggaccnc aggctagggt tttttnggac cggccatntg 420  
ntcngttttt gggtngtttg nggttanggt tagnntnngn naatngttta ngancgtttt 480  
angtaggntt ttccccacccc caggtnggt 509

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agagaacaaa tgtgctccca agcaacagag cagcgaaaat ttttttatta ctggnttct 240  
aacttttccc tgntaactnt aactgtcttc angttncacc nnatgtgact tnggggggga 300  
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gagagtgcctt tgggtgatacc tgggctgtct caagcctgtg tgttcttcaa agattttgtc 180
tttgtaactt gtttatccat ttggtgataa ggtagctaat ggcaattttg tagaattctg 240
tttctctttt cctgtctctt tctttgtttc ctattttcca cagttccgta ggnctcangt 300
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cgggctccgg ncaccgtnc tgccttgaat ctgcccgcgg cggcccgtgt tgtgttttgt 180  
gctgtgtcca cgcgctaagg cgacccccctc ccccgtagtg acttctccta taagcgnttc 240  
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ggcagcagga caccagggga tctagcgtgg gggaggagag gaggcctaag agaaaatgac 300  
cattncaaag cctgcccttc attgggtctg gtttcaagtn ttccaaacca gntttggntg 360  
gttagcagag acttcaaggg tgntncagcc aaacgtnttt ggggcattac catgacctgg 420  
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gctctgctgc tcgtttcccc nacgngaaga agaagtacac ggccaccaag gtcgtctact 180
ccncgccggn tccaccggcc cnngaagcca gcctnggcac agttacgacc ncaagactac 240
gtgtnaaggg acagangcaa ggtagaccnc accaccanca ccancagcat naacancatn 300
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aaagaaggca gtcccttggc actgcctgtt ctcaatgctg tgtgctgtgg actggggaca 240  
ctttaattac cacgtacaat tttatggact gtccatgaga agcttctttt taactttttc 300  
atggattgcc gttaaaggna aatatagaag gatagaagag gntttttcan cacgttgggc 360  
aggaactggt ccnccctggt ctatgggtta gagcctgnaa actgncccag gttcnatctt 420  
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3244

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3246

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<222> (404)  
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<220>  
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3247

<222> (409)  
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<220>  
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<220>  
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<220>  
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<220>  
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<222> (471)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (474)  
<223> n equals a,t,g, or c

<220>  
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<222> (480)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature °  
<222> (484)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (485)



3248

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (492)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (502)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (510)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3639

```

aattcggcag agggntgagt ggatttaaga taatnatgtc agtctccaga gggaagatgc 60
cagantgaat aagctactag gacagaagag tactgtatgc aagtggaatg tactgggaat 120
caagattttg naagatgnat gcaattgcct ggagatgaca aatcctaggg ccatgactat 180
gtgnagtagg tggcagaggt ggggtggagga agaaatgggtc agagctacta ggccnaagag 240
ctaaagggcc agagttnata gagattccac cttcatggaa tgctggaatt tggccaagaa 300
tgnttttcgg acagagagga gaagaggaag aagtaagccc agacattcca agtttatcca 360
ttcatttatt aaccancaaa ttatttacag ncanttacnt ggcncctttna aatttttccc 420
aancacntt ccntgttact ttcaggngtt tttaccccc ttttaatctt nnanccttn 480
cccnnttcct cntttttaaa gnttgattan 510

```

&lt;210&gt; 3640

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (155)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (189)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (199)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (240)

3249

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<220>

<221> misc feature

<222> (294)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (299)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (302)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (315)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (329)

<223> n equals a,t,g, or c

<400> 3640

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gttcaagagg ccttaattaa gcaccgcaga ggaccaagga ggtagaaatt catctctgaa 120
agtggctctc tctgggccct ggcctggaag acccnetgct ttcctggtgg gcaccacgag 180
ggggcaggna cacatggtnc ttccatttca cctctgttgg cctcctcccc gtggtatttn 240
accgttgact cccatgcttg aaggtgggtc tgtaaattggc cgagggaccc tgancattna 300
gnggttgaaa gggtnccctgg gaaagggtng gaggaatt 338
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<210> 3641

<211> 335

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

## 3250

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<222> (244)  
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<220>  
<221> misc feature  
<222> (252)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (255)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (256)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (259)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (286)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (327)  
<223> n equals a,t,g, or c

<400> 3641  
aattcggcag aggntaaggg cacatggcat gcatcttcaa agctgacanc atttttataa 60  
tacttttggt tcctttttgt gtgtttttta tagatgttta tagctgtctt catatcttgt 120  
tgatatgttg acacttggaa gggactagag atgtaagtaa acaatctcaa gcgtagatta 180  
tatggcaata tgcaggggtcc cactgctagc taggtagtgc tggagcctgt gtgcactctg 240  
gctnctaaac antgnncang cttncagctg gcaccacata ctatgnacat gttttctggg 300  
aaagtttcct tggaaaaatg actgttnagt aaaat 335

<210> 3642  
<211> 330  
<212> DNA  
<213> Homo sapiens

## 3251

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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (78)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (208)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (309)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (310)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (311)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (319)  
<223> n equals a,t,g, or c

<400> 3642  
aattcggcan agagcaagat ggtggattac tgctttcata gagtgtagac agacctctca 60  
gtagagacaa cggttganntt gggccttggtg gatgagtaaa gcttcatgaa aaacttaata 120  
tgttgccctt atttttttaca ctttgcagag gactgacgtt atttttccata ctggcatgtg 180  
ggaagctgtc actgacttat gacttgtnca ttcattctaa taaagtgacc tcacagatgt 240  
gtttataaat gcattaaaat ccaggcatgt tttcagagaa agttttttaga atataaatgt 300  
tataatgtnn naaccacgnc ctttttttcc 330

<210> 3643  
<211> 400  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature

3252

<222> (123)  
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<220>  
<221> misc feature  
<222> (171)  
<223> n equals a,t,g, or c

<220>  
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<222> (188)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (274)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (289)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (296)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (309)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (333)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (338)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (358)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (397)

## 3253

<223> n equals a,t,g, or c

<400> 3643

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aattcggcag aggggaaccag gtccctgcac ggcacccacg caggtgtccc ggtctgcata 60
agcctcgtgt gcctttgtaa agtccaccta cacttttgaa ccagctctcg ctgcccgcac 120
gtntttggcg ctgtgctagg ggcgggagtt cttccagact cttggaccag nccgccctga 180
ccaccagntc tacttcccaa cccccactgc ctgagaggtc tctatcagtg tcctgcctga 240
attctttcct tcaagtgaag atgtgactga ctanctcctc gagttgttna tgaggntgaa 300
agaatgggna ttaaaagcat ttggtttaaa gtnggtgntc aataaaattg ttagtggnnt 360
ttattcaaaa aaaaaaaaaa aaatttgggg ggggggnccg 400
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<210> 3644

<211> 426

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (282)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (319)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (344)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (349)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (351)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (371)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (373)

<223> n equals a,t,g, or c

3254

<220>  
<221> misc feature  
<222> (403)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (411)  
<223> n equals a,t,g, or c

<400> 3644  
aattcggcac gagcttttcc agcccacaca gccatgtcat gattccatta gtcatgattc 60  
catgactaat cctcaattgg aaatgcccac cattgatgtt cttcacttag agaaacattc 120  
tgatgcacct tttcaaaact gtttttatgt ttctgttaa gttatgcaat gtctctactt 180  
gggaaaaagt ttggaagggg acatttgtaa ccatacttac gtatTTTTTg atgtttctcc 240  
attacttttc attcatgtgg gctgggcata taggaaacca antattaaaa caaggtgggc 300  
acaagagtgt atgtggggnt gagtaaggaa aatggaaagc cagnaacant ntttattaca 360  
caatggcatt nncattttt ggaaaacagg ctgttgggac ccngccctgt naaaggaagg 420  
tttggg 426

<210> 3645  
<211> 318  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (249)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (267)  
<223> n equals a,t,g, or c

<220>

## 3255

<221> misc feature  
<222> (296)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (316)  
<223> n equals a,t,g, or c

<400> 3645  
aattcggcan agnctttgta gttactgtnt tgtggacggt cataagcctg ggtgatgtgc 60  
caggatcatg ggtccctcgg agaccccttt ctctgtccct gaggaatatg tgagaaccag 120  
acggctcatt ttacgtcctt tgagaagaca gctgcgggga cgtcttagga tgattcactg 180  
aggccagtca gtggtgggac caagagctct ggggaacata atttctatca gcctggcgctc 240  
ttacttggn cccccctcca ctccctnacc caccctgtgc aacctgtggt tctttntttt 300  
gtgtaggacc atcagntt 318

<210> 3646  
<211> 298  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (198)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (288)  
<223> n equals a,t,g, or c

<400> 3646  
aattcggcac agcttaatca cccttgctcc tcctgggtgc ctggaagatg gactggcaga 60  
gacctgtttg ttgcgttttg tgctttgatg ccaggaatgc cgctagtgtt atgtccccgg 120  
tggggggcaca cagcgggggg cgccaggttt tccttgctcc ccagctgctc tgcccccttt 180



## 3256

ccccctcttc cctgactnca ggcctgaacc ngctcccgtn ctgtnaataa atctttgtga 240  
aattaaaaaa aaaaaaaaaa aaaactcggg ggggggcccc gtaccaantt gggccctt 298

<210> 3647

<211> 579

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (51)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (98)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (107)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (119)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (130)

3257

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (143)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (147)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (152)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (170)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (180)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (185)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (213)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (287)

<223> n equals a,t,g, or c

3258

<220>  
<221> misc feature  
<222> (319)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (340)  
<223> n equals a,t,g, or c

<220>  
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<222> (415)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (428)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (446)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (521)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (522)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (543)  
<223> n equals a,t,g, or c

<220>  
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<222> (556)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (569)  
<223> n equals a,t,g, or c

## 3259

&lt;400&gt; 3647

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gccaccacgg cgttgtacct gtaggactct cattcggnat gattgggnata gcttctggna 120
tttgttcaan tnttggttat gtntaanctg tnatgtacta gtgttctgtn tgtcattgtn 180
ttgtnaatta caccataatg ctaatttaan ganactccaa atctcaatga agccagctca 240
cagtgtctgtg tgccccgggc acctagcaag ctgccgaacc aaaaganttt gcaccccgct 300
gcgggcccccac gtggttggng ccctgccctg gcaggtcatn ctgtgctcgg aggccatctc 360
gggcacaggc ccaacccggc cccaaccctc cagaacaggg ctcacgttac tcaancatcc 420
tggctgcngg tctgtctgaa acagcngggg cttgaggacg tttgtctgtc gtgatgggca 480
aggcaaaagt ctggatgttg tgtgtatcga gaggccaaag nntgtggcaa tgcaagggga 540
aanccgattt gtcctngtga agcggcaant ctgaagggtt 579
```

&lt;210&gt; 3648

&lt;211&gt; 191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (21)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (151)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (170)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (176)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (179)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (189)

&lt;223&gt; n equals a,t,g, or c

## 3260

&lt;400&gt; 3648

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gcacaactgc tnagtagatg nttctgagta ttacaaaaat cactgggttat tacctgcagg 60
atattaaaaa acatttgaaa aagagaaaaa gaactatcag cgtttagaaa tgatgataga 120
tattgaatct ttgaattgaa ttttaacaat ncattctagt aatcagagtn tacttntnt 180
atacaacang g 191
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&lt;210&gt; 3649

&lt;211&gt; 465

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (293)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (311)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (313)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (314)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (364)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (373)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (386)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (411)

&lt;223&gt; n equals a,t,g, or c

## 3261

<220>  
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<222> (432)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (436)  
<223> n equals a,t,g, or c

<400> 3649  
tcgacccacg cgtccgcccc cgcggtccgcc cacgcgtccg cccacgcgtc cggattaaac 60  
acacactctg ctattttttc acttcttgga ggtagaagtc gagtatgagg cagttatttt 120  
ttagagtgtg gaattatagt ctttccttgc tcctagtatt tctgtatatc tttactttgt 180  
aggtaaaaat aaatgtttat ttaaaacaat ttttaaaatt ataaatttat ttttatagcc 240  
atatgtagga tataaagatt tatatagatt atatactcaa gctacttaat gcnttaattc 300  
tagctactca ncnngaaata gtaaacagtt ttacggaaat aaactctaca gacagatgcc 360  
gtangaggag ccntggaagt agaaangtat tcgccttgca cacggagtgg nttagccga 420  
caacccagc angtnccat aacggccata ccttggaat ccacc 465

<210> 3650  
<211> 316  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (124)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (157)  
<223> n equals a,t,g, or c

## 3262

<220>  
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<222> (161)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (175)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (242)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (248)  
<223> n equals a,t,g, or c

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<220>  
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<222> (302)  
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cctccctccc ggagacggga ccggnccccg ccccgcgccc cgggtcgctc ccggcggccc 120  
ctanccacct nctgagtcct ggcctccccg ggcgcacnaca ntcccagccg gccgnagcct 180  
ggacacgccc ngggcccccc agtctccccg ggctgctccc ccaggcatgg cacagggggcc 240  
tngtctgnac tatgggcagc agcacgggga caagnanggt tcgtatttga tgcttggggg 300  
gncaaaaagtt gatggt 316

<210> 3651  
<211> 191  
<212> DNA

## 3263

<213> Homo sapiens

<220>

<221> misc feature

<222> (89)

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<220>

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<222> (156)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (163)

<223> n equals a,t,g, or c

<400> 3651

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attcaaggaa gaaccttctg cccagctnt gcaagatgaa aagctntccc acttggtct 120
tatacttcca caagagcttn gncaggacca ggttgntact ggntcagcaa ctctgcagaa 180
aatgtcctcc c                                     191
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<210> 3652

<211> 426

<212> DNA

<213> Homo sapiens

<220>

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<222> (27)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (306)



3264

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (320)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (321)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (323)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (357)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (385)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (418)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (420)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (424)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3652

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aggtaagatc ataacaatgt ctcatgatgt aaaaaatatt aaagatatca atactaagtg 120
acagtatcac tctaataataa tatggatcag agcatttatt ttggggagga aaacagtggg 180
gattaccggc attttatttaa acttaaaaact ttgtagaaaag caaacaaaat tgttcttggg 240
agaaaatcaa ctttttagatt aaaaaaattt taagtatcta ggagtattta aatccttttc 300
ccatanataa aagtacagtn ntnttggtgg cagaatgaaa atcatgcaac ttctagnata 360
tagactatat aatcagattg acagnatata gaatacattt atcagactag aagatgangn 420
ttanaa                                         426

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3265

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<213> Homo sapiens

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3266

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3267

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3268

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3269

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3270

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## 3271

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<220>  
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 agcagaggct gcagcctaac gngtggattt aatgaccagc acgcaaggca caaagcattt 120  
 tgcacagtgn ttgttttcct gtnttgnact tacnantaag gnctatggga gtaccatgna 180  
 aaacgtttgc tgnantcct tnttttnna anngttttng ntnaaaattt gatcgnctta 240  
 actactgcn aatagccta tttttgggct taanaanctg natnggaaac tntcnnctg 300  
 cagatgctgn actgttctag aagnntttng nttaaangggc tnctaatttg antgtaatgg 360  
 cnttttaaagn atacaatcna acnttaaaaa gntgnnaaaa nggncttgga accntatctt 420  
 tagttacttg aagagtttct agttttttta aaatacagnt tatgttataa taatttttat 480  
 taattttagan aagacaatna atggctgtga gaaaaacgga tttcttttgg aatttcnttt 540  
 tngggccatt gtnaangaat ngtttttctt ttntaancga caattttcct ttgggttaaaa 600  
 cttaaantgg acatttaant tttggcaatc taagaggtta atttctgagg gggaanactt 660  
 ataagcngtt aagtttgcct ntgggggntg ggaaatttta aactggggcn 710

<210> 3654  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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<220>  
 <221> misc feature



## 3272

<222> (211)  
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<220>  
<221> misc feature  
<222> (304)  
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<220>  
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<222> (353)  
<223> n equals a,t,g, or c

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<222> (534)  
<223> n equals a,t,g, or c

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<222> (539)  
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<220>  
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cacaatacat tttanagaag tggcaagaca aaggaaagca ggtttaggct cccaaaggag 180  
ggacctctga gaagttacct ccacgaagca nctcggtggg tgccagagag aacatcggta 240  
caggtctggg aatttcctcg ggagctggcc ccaagccaca gccctcccca gctccgtagt 300  
ttgnttggtc ttcctctcct gggctcaatc atcttggaca agcctcactg canggaaaac 360  
ccctggggag acacaggggt tgctttccca gcagaagggtc agtgtctgaa gagaaaactgg 420

## 3273

gggtcccccga gggaccagat tcggctccgg tggttaagggtg ccccagggtgg cccaatagga 480  
gagggttatct tctgggagct ctccaggag gagtccacag tgcttgggcc aagnttctnt 540  
cttgaagaat ccaagcataa ggagcctttg tttggganca naggagccct gngccttctt 600  
gagtcaccca ccagctcnag tgccctggac ctgg 634

<210> 3655

<211> 507

<212> DNA

<213> Homo sapiens

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<220>

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<222> (37)

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<220>

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<222> (81)

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<222> (277)

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<222> (287)

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<220>

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<222> (289)

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<220>

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<222> (334)

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<220>

3274

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<220>  
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<220>  
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<220>  
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<220>  
 <221> misc feature  
 <222> (485)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (505)  
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 gtgtggttta ctccatgcag ntgtcaggag acctctgtat ggcttttcaa ttttagttga 120  
 aattctctct ccatggcctt ttggagtgccc ttgctgtatc tccgaagtaa atttcaatta 180  
 ctctacattt catcaatggt ggagtggcaa gaaaaaggag gaacagattt ggggtgaaaa 240  
 gttttgtttt ctagggtctaa caaactgtaa aatgttnaaa atagcanana tgggtgaaaa 300  
 aaaaaccaga gcccttttga ctttcgcgaa aganttttca aggattacct gcttcagcan 360  
 accccatcnt gtgaccttga tttctggatc aagttatgtg ggggacaaac gaagcacagg 420  
 ctcttcaggg atgctggaac agatggtgga tcaaaatgga cttnatcacn catctgtnga 480  
 agttnccttg gattgaaaaa ctcanga 507

<210> 3656  
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 <212> DNA  
 <213> Homo sapiens

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<220>

3275

<221> misc feature  
<222> (393)  
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<220>  
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<222> (428)  
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<220>  
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<222> (430)  
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<220>  
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<222> (432)  
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<220>  
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tgcctaaaca atgccttaac ccatttctct cccagaagg gtcctacatt tcttaagcta 120  
ttttcagctc ctccacacct actcacttgc aatacttgtc ataacaggaa gccagtttca 180  
tatactgtaa tccccaaaca cattgcaccc acacgtgggg agcgtgaggg gctgagcgag 240  
gagcgaggag gccaggcctt ccaaaaactg gaggggctga gcaactgagcc gctcccaagg 300  
tggggcgctc ccactcccaa gcccaggatt cagaagccag aatccacatc cagacattct 360  
tgggtttcctt tctcatgcag ttgctggtga ctnttttttt ttttaataaag catttgagta 420  
ggcaaaanan ann 433

<210> 3657  
<211> 378  
<212> DNA  
<213> Homo sapiens

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<220>  
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## 3276

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<220>  
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 <222> (338)  
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<220>  
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 <222> (339)  
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<220>  
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 <222> (365)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (378)  
 <223> n equals a,t,g, or c

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 ctgttttgggt gtgtatgtgt gtgccaccta cccatgcttg tctctgcgcc ccggcgcacc 120  
 tggcgggggtc ccggcaggaa gtgcagcggc ggctgggtgg ctggaccgga ccagagctca 180  
 gtgcttttgg ggaactggtg ttggagggcg cgttccgagg aggcggaggg ggtggccccc 240  
 ggctacgagg gggtagcgg ntgctcttcc tgttctctcg gatgctgntg gtggccaagc 300  
 gcagggggct ggagtacacc tacaaaggcc acatcttnnt gagtttgggg atgggggtggg 360  
 gctanaatac tacctacn 378

<210> 3658  
 <211> 282  
 <212> DNA  
 <213> Homo sapiens

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 <222> (26)  
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<220>  
 <221> misc feature  
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3277

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<220>  
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<220>  
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angaaacca taatgtnagg atacttgatt tttatatnca gataattctt tcatgcactg 120  
aatggaagac agtatatctg tatattaatn tttgttnaga ttatgaatca ttttaaccctt 180  
atccttttatt cttgtaataa gactatttaa tgggggttctc ttgtgatntc catctttatc 240  
aatgcattcg tgttggtctt gatgtatact acctgngntn an 282

<210> 3659  
<211> 242  
<212> DNA

3278

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (227)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (232)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (236)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (237)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (239)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3659

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gggagctctg ggggttgga caggaatgca tattcaggcg agaggcattc tgagctggcc 60
ttagcttaat tacttcattt gatttttaat atagacataa aaatgcagat gaaccagagc 120
ttttgtaatg aaaatcattt ccgaaggaat atttcagacc ccactccgtc acctccagcc 180
tgcagaatgc gtccagaaat aaattctgtg tctgtgtgaa aaaaaanaaa anctannang 240
at                                                                 242
```

&lt;210&gt; 3660

&lt;211&gt; 479

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (123)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (267)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

3279

<222> (364)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (366)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (452)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (464)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (465)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (467)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (479)  
<223> n equals a,t,g, or c

<400> 3660  
gtacattttaaa aaaataaatgc ctttttaaaat gtgggtagaaa cttttttttat taacatggct 60  
ttaattttata gcaaccatttt gttacctaat cacagtaaca caacaaaata attagtgtat 120  
cancctttgaa gatctcatttt cacaaaagct aaaaaaacacg ttatgatata tccattactc 180  
aaactcataaa gccctttttgc atgcattggg catagattttc atggaaaaatc aaaagcatttt 240  
agtctactttt ctgacattttt catctgntct ttgaactacc ttaataaaaaa aaaattgttg 300  
cccttatgta gggtaaatgtg acgtttgtct gtctgaaaaat ttccttggat cagcttatttt 360  
ctgngnaact tatgtctttg gtatacagct atttgccttt ttaactgatt tttaacagga 420  
tactttacct tgggacttgg aacacttaat gnaagcttat aaanncncat gaaccatttn 479

<210> 3661  
<211> 491  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)



3280

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (47)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (144)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (169)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (314)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (330)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (370)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (428)

<223> n equals a,t,g, or c

3281

<220>  
<221> misc feature  
<222> (444)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (465)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (468)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (469)  
<223> n equals a,t,g, or c

<400> 3661  
tnaacccecca naagccagn g gacacgccag tgcctaaaag acatttntnt gtttctccta 60  
ctctgcaatg tcattctgtg gatcatgcct gccttcgggg cccgccctca tttcagcaac 120  
acagtggagg tggatttcta cggntactcc ctctggggcg tcatcagtna acatctgcct 180  
cccttcgggc atcttctacc gcatgcacgc tgtgtccagc ctgctggagg tctacgtgct 240  
gtcctgaggc ctccaacaga ggcattggggg gcaggaagag ggggctcagc tcatgtgccc 300  
actcagacac cctntgggaa tgaatcccan ctggtgccat atgacagccc atttccttct 360  
ggccccaaan tggaattttc acaaaaagtta tttttccagg ttcaattttt aaatcacagt 420  
caggacangc ccattcacc cagnattaac gtggggcatt aaggngannt ggggaaaggg 480  
agaccttttc t 491

<210> 3662  
<211> 64  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

## 3282

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<400> 3662  
ggactagttc tagatcgcca gcggacgntc gngatntgga aatattttga gnnctgtct 60  
gcca 64

<210> 3663  
<211> 100  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (72)  
<223> n equals a,t,g, or c

<400> 3663  
attatgggct agggggnctg ggggaccggg tgcaggggcc cttagctcgt ntctcgantc 60  
cgccgaata tnaatttgga acatgttggt gagttacctt 100

<210> 3664  
<211> 445

3283

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (275)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (396)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (419)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (434)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (444)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (445)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3664

```
ggtcattgac acacttttcga atccaggcag ccacactcca agccaagtct tccctagaga 60
acagcagcag atccatgggtc tcatcagtggt ccttgtagct ttgtgcagca gttccgggct 120
ggaagacaga tacagctgga cagagctcct gaaaacattt caaaataccc cctccccctg 180
ccctgccctg cctttgggggt ccaccggcac tccagttgga tggcacaaca tagtgtatcc 240
gtgcagaagc cgagctggca ttttcaccag tgtanccaag ggcctttgcc aagggcagag 300
caggtggagc cctctgcctg ccctatcaca catacgggta cttgcttttc actgtgatgt 360
ttaagagaat gtatgaacag tttacatttt ccttanaaat acattgatgg gatcacagnt 420
ggcttttaaaa ccancaacaa tctnn                                     445
```

&lt;210&gt; 3665

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

3284

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (21)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (297)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (360)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (363)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (364)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (365)

<223> n equals a,t,g, or c

<400> 3665

gncactngaa cacatgnngc ncancggcc cgcttcgaag tgcttgggca ctcggaac 60  
tgttacctca gggactctat ttaaagtctt gctttttctg cagcaccgct tggggaaatc 120  
ctgtcaggat gaaaaggaaa gttggagatt ttttaaacc ctcttcgctt tgctttattt 180

## 3285

tcaagtaccc aaacttggtt tattctttttt ttcttttaat cttgaaggct tacccttggg 240  
gggaattggt tggggccaag ccaaggcccc ccttggaact tccccaagaa aaatggncctt 300  
gaaaggggtc cccttctttc ccaagggggg aagtttcccc ttgggggggaa gccaaggaan 360  
ttnnnaaagg ggccttatt ttcccc 387

<210> 3666

<211> 138

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (15)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (62)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (111)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (120)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<400> 3666

## 3286

agtacnngga agtangggca ctcggtggaa aagattggac atagttgcac tcacantcat 60  
tnacattttg accatgttgt gctcaacaag agtacagatc acaacgagac nctgcggaan 120  
tctcncagac taccgtta 138

<210> 3667

<211> 577

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (302)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (431)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (516)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (540)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (557)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (561)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3287

&lt;222&gt; (565)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3667

```

gaaaantnga aattctcaag cagttttatt caattagaac ttgcaaata tcaaattgtc 60
cgtatccttc tggattcttg tctgaacatt gcttatctgc gtacatatca cagtgttttc 120
acatagggat tgctgtatgt tgaagtagtt gaggtgtaat agccatataa tctaattgtga 180
tccatctgaa taggcaaacc cttgcacacc tgtgtacctg ttgaacattt tcatcatttg 240
cagttttttc ttaacataag cactgttctg aatacttgtg aacaagtcac ttgggagttt 300
gntcatgggc gtgtatcttc caaagaggag tcttcacgtt caagctgggt aacacactat 360
cagctgtagc cttttcattt taaaaacatt tccagtgtctg caaattacta tgggtgattgg 420
gaattcaact nggaaatatt tttatttttt aaaaagatag tacattcata tgaatcaaaa 480
taaaatcctt aaaaagggtc atgaaaagtc ttgctnccgg ccctaccac tattctgcgn 540
aagtcaccg gttcctnaca ngaanttaaa tttttag 577

```

&lt;210&gt; 3668

&lt;211&gt; 102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (9)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (27)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (36)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (74)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (82)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3668

```

gctctagang atccaagctt acgtacnatt gtgtgntact ggtatatatg gttctatatg 60
cgtacattaa attnatatta tntggccagt aagatttaca aa 102

```

&lt;210&gt; 3669

&lt;211&gt; 346



3288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (13)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (278)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (293)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (297)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (300)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (301)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3669

```
gattataatt tnntgtgtaa tagctattca ttccttcatt tatccaatcc tcttaaaaaa 60
atgtagctga agagtttaca caaaaataaa taagtcaagg gatgtgaatg tagtcgttat 120
gtgctgtggg agccaccctc ggttggctgc gtaggcaggg tgaactggta gcagtgtgga 180
ggtaaggagg tgaggcctgg aatggagaag ggggggtgtca gtgagatcag tggaggctgc 240
agaggtccag caatgctgaa ggtctgaaat gaggcagnga tgggttgaag atnagangcn 300
natattaaac ttttatgagg tagaataggc aaatggtgat ggctta 346
```

&lt;210&gt; 3670

&lt;211&gt; 131

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3289

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<400> 3670

## 3290

canggnttaa antnttagna agaactggga taataaaaac agttacggag ccactttatg 60  
aagtgaagag aaatatgata acctagaggc ccaatgaggt natnttccag aangntgagt 120  
tatatttaaa n 131

<210> 3671  
<211> 74  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<400> 3671  
gagtgantat tggattctct ttggtatgtc aataaaaagtn tatangtatg tnanaacgga 60  
tttgaggaaa aaaa 74

<210> 3672  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)

## 3291

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (91)

<223> n equals a,t,g, or c

<400> 3672

taccaggagg acgtaatgat taatnancct atcccaatgc cttgtgacta ctctacgatg 60  
actgactatg cactgctgat gcantgngct nattcactat gggg 104

<210> 3673

<211> 490

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (352)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (417)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (427)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (442)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (473)

<223> n equals a,t,g, or c

## 3292

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (476)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3673

```

ggaagttcat caatcagtggt gtctaagtggt tcaactgggta tataaccattt tggtagtttca 60
gctatctttc caacttccta aatcatcacc ttcatattgat cttgtttttt tccactatca 120
cttcttttatt gaccatataa agaataataag tgagttctta ttttggttatt gttcatttta 180
gtctaatttc atcaaaatat cacaatcttt taatttcatt ttaatttcaa agattaaatg 240
aaacctacat agaaatgtgt gtaagatttg catttgcat attttggcat caatttgcta 300
tcctccctca tgcacacaga aatcatttcc accgtatgtg atttcaaaca tncaagtgc 360
gattaaaagc agttgtaaat tatggttctc attttcatga tacaattata atataancct 420
ctcttgntgc tgtaaccaat tnccaccaac ttcatatctt accataaagt gancgntaat 480
cctaaaaaaaaa                                     490

```

&lt;210&gt; 3674

&lt;211&gt; 53

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (27)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (30)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (39)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (52)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3674

```

ggcgagcggt ttgacctta tttttanttn tcctcttnt ctggccanatt cnt 53

```

&lt;210&gt; 3675

&lt;211&gt; 63

## 3293

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<400> 3675  
gntttgtaga gaacatatat gcataaacat agggcaatta ttnttcnaat ggagacatat 60  
aat 63

<210> 3676  
<211> 456  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (230)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (408)  
<223> n equals a,t,g, or c

3294

<220>  
<221> misc feature  
<222> (417)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (438)  
<223> n equals a,t,g, or c

<220>  
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<222> (455)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (456)  
<223> n equals a,t,g, or c

<400> 3676  
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atTTTTgcag ccagatgtgg gctgacagcc atcactcagg gcttccttcc cccgccgtta 120  
ggaggtcttg aagacagtca cgttcccat tttgcagaat ccccatcaac attattgaag 180  
atggatgtat ctttaaagca aagattgatt gtggatatcg gagttatggn gtcatttatc 240  
atggtgaata ttatttagac ttgggttgta caaggctgta acttgagaca cagccagggg 300  
agggacaacc tgaaaacgcg gatccatgaa ttttaatgga tggatgcttt tttcaaagct 360  
caactcacta tagcgtgatt tacttttctt actgcaagga aacaagcnat ttcaagnctt 420  
aaagagacag catgccantg gtcctgtctg gggggn 456

<210> 3677  
<211> 291  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (188)  
<223> n equals a,t,g, or c

## 3295

<220>  
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<222> (227)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (228)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (231)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (280)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (285)  
<223> n equals a,t,g, or c

<400> 3677  
ggatnaagta aaggacgagc aagttcctca ggaaatcaag aaagcagcgg tcagagctgt 60  
attattctcc tctttgatgt aataaagtca gctattagat atgagaaaac catttcagaa 120  
gcctggatta aggcaattga aaacactgcc tcagtatctg aacacaaggc ctgcattgnc 180  
ttcattgnta tctttaatga ctgtattctg gtctaataac tcagttnnng ngtcctaaga 240  
agtggagcat tcagttaaga taagtagtaa aatTTTTTTn gtttnttctt g 291

<210> 3678  
<211> 231  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c



3296

<220>  
<221> misc feature  
<222> (166)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (196)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (214)  
<223> n equals a,t,g, or c

<400> 3678  
ggagaaaatg atattttaagc caagaactct tagaagttag ctaagaaaga gatgggaaaa 60  
tgagacgaca ttgctggagt ngataaaaact gcatgtnaaa ggcaggaaga tggggaaaaa 120  
aagttcagta aagctggaat ggggaaaatgt antccgggac tgaatnttaa agggctttat 180  
caacctcagt naagannttg gaccttatgt tganggtggc tgataacata t 231

<210> 3679  
<211> 387  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (158)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (169)  
<223> n equals a,t,g, or c

<220>  
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<222> (199)  
<223> n equals a,t,g, or c

<220>  
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<222> (200)  
<223> n equals a,t,g, or c

3297

<220>  
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<222> (208)  
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<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (228)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (231)  
<223> n equals a,t,g, or c

<220>  
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<222> (236)  
<223> n equals a,t,g, or c

<220>  
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<222> (248)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (311)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (343)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (348)  
<223> n equals a,t,g, or c

<400> 3679  
gggtcattttg aatctacatg aatgaacact ttggattttg ttgtagtttg attctagggt 60  
agaaccagtc catgctgttt ttatttttta tctccgaatt gtagaatatg ttactaacgt 120  
ttccagtgc agactggcct cgaggctgcc gggtgagnag cagattttng gtatgaatgt 180  
gaactaaacc aggcttcnnn ataatagnct aggcaaaatn ctaaaaanta nttagnaaca 240

## 3298

gttgtganag tataataagt gagaaagttt tgaaataata ttagaagtga aaaggaggaa 300  
aatgtatgtg naggagcagc taatcaagag gtggcttttt tancacgntg actgaagata 360  
cgtgtatgga tgactaaaac caaggga 387

<210> 3680  
<211> 109  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (64)  
<223> n equals a,t,g, or c

<220>  
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<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (94)  
<223> n equals a,t,g, or c

<220>  
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<222> (105)  
<223> n equals a,t,g, or c

<400> 3680  
gctcgtgccg aattcggcac gagggaagtg aagccccagc gagcggctgc aacggggccc 60  
tgangaacaa ccaacgggaa gcgnggcna atcngtgaac aactnggaa 109

<210> 3681  
<211> 384  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (141)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (258)

3299

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (349)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (350)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (352)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (366)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (367)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3681

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ggggaaactc ggagtacctg cagctggcct ctgtcactga ctccacacag gtgaatgtgc 60
cccgtctgctt acacttctca ggagtgggga aggtgcgaca ggctgcatgc ggtggcacgg 120
gctgtgcagt gttaaacgga naaggacatg tttttgtctg gggctatgga attcttggga 180
aagggtccaaa cctagtggaa agtgccgtcc ctgaaatgat accaccact ctctttggct 240
tgacggagtt caaccanana atccaggttt cccgcacccg atgtggactc agccactttg 300
ctgcactgac caacaaaagga gagctgtttg tatggggcaa gaacattcnn anggtgcctg 360
ggaatnngtt cgccttgaag gacc                                     384
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&lt;210&gt; 3682

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (305)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (416)

&lt;223&gt; n equals a,t,g, or c

## 3300

<220>  
<221> misc feature  
<222> (421)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (424)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (449)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (468)  
<223> n equals a,t,g, or c

<400> 3682  
cggaaagcgg ctccgagcca ggggctattg caaagccagg gtgcgctacc ggacggagag 60  
gggagagccc tgagcagagt gagcaacatc gcagccaagg cggaggccga agaggggcg 120  
caggcaccaa tctccgcgtt gcctcagccc cggaggcgcc ccagagcgct tcttgtccca 180  
gcagagccac tctgcctgcg cctgcctctc agtgtctcca actttgcgct ggaagaaaaa 240  
cttcccgcgc gccggcagaa ctgcagcgcc tcctcttagt gactccggga gcttcggctg 300  
tagcnggctc tgcgcgccct tccaacgaat aatagaaatt gttaatttta acaatccaga 360  
gcaggccaac gaggttttgc tctcccgacc cgaactaaag ctccctcgct ccgtgngctg 420  
ntangagcgg tgtctcctgg ggctccaang cagcgagctg tgcccgangg gttcgggaagg 480  
c 481

<210> 3683  
<211> 309  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

## 3301

<220>  
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<222> (149)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (178)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (200)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (209)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (243)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (272)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (278)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (302)  
<223> n equals a,t,g, or c

<400> 3683

## 3302

ttttanggtt tcntaaaaag tatttaggtg acactatata agtacgcctg caggtaccgg 60  
tccggtaatt cgcggccgca tcaaccgaac cggtgcgccg caaactangg cgcctcgggc 120  
cagggaaacgc ggtaagtaac catggccanc gctaacgggg cccgtggtaa aacnggcnc 180  
cggacagggga atccgccggn cctgccgcnc cccatcctca acctggaggt caagttcacc 240  
aanatattta tcatcaatgg aatngcacgt antccaanat tgggaaaaaa gtttgctaca 300  
tntaacctt 309

<210> 3684

<211> 440

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (161)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (240)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (277)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (315)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (327)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (410)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (413)

<223> n equals a,t,g, or c

## 3303

<220>  
 <221> misc feature  
 <222> (414)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (424)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (432)  
 <223> n equals a,t,g, or c

<400> 3684  
 gataaggttc atgctttaac cagatccgga acatagacct gatataatttc aagtgtcata 60  
 ttttgcattt aaatttgcca aaaaggattg tccagtctcc aacatcaata attcttctat 120  
 tccttcagct cttcctgaac cgatgactgc tagtgaagca nctgctagga aaagccaaat 180  
 aaaagccaga ataacagata ccattggacc aacagaaacc tcaattgcac caagacaaan 240  
 accaaaggcc aactctgcta ctactgccac tcccagngtg ctgaccattc aaagttcagc 300  
 aacacctgtt aaagnccttg ctctgntga attcngtaac catagaccaa aagggggcact 360  
 aagacctgga aatggccctg aaattttatt gggtcaggga cctcctcagn agnncgcaca 420  
 gcancataga gnactccagc 440

<210> 3685  
 <211> 166  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (1)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (32)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (35)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (51)  
 <223> n equals a,t,g, or c



3304

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<400> 3685  
nggggcccgcg ctttccctcg tgaagggtcg tncangagtc atgcgtacat ncgctcattt 60  
tgctntggac gcactgatgt tcccggctcg tcgccgtgcc gcaatcacna ggctctncga 120  
acgcctttca ctgtgtatct gntatacatt cncatntgca aaaccc 166

<210> 3686  
<211> 649  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (94)  
<223> n equals a,t,g, or c

<220>

## 3305

<221> misc feature  
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<220>  
<221> misc feature  
<222> (323)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (449)  
<223> n equals a,t,g, or c

<220>  
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<222> (543)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (572)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (603)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (608)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (616)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (625)  
<223> n equals a,t,g, or c

<400> 3686  
catcccccg gctgcaggaa ttcattgacg acgacaagtt aacgtngact caagatggct 60  
gtcttcgcct tagtactcgt gtgaagttgg cggngacggg tcctgtcatc ttcttgggct 120  
tatttgggtgt gctgttgaag gggggagact agagaaatgg cagggaacct cttatccggc 180  
gcaggtaggc gcctgtggga ctgggtgcct ctggcgtgca gaagcttctc tcttgggtgtg 240  
cctagattga tcggtataag gctcactctc cgcggcccca aagtgggtga tcgttgggaac 300  
gagaaaaggg ccatgttcgn agngtatgac aacatcggya tcctgggaaa ctttgaaaag 360

## 3306

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caccctaaag aactgatcag ggggccata tggcttcgag gttggaaagg gaatgaattg 420
caacgggtgta tcccaaagag gaaaatggnt ggaaagtaga atggtcgctg atgacctgac 480
aaccttaata aacgcatccc ctatctctac caacctttaa ccgacatggg aggttcgata 540
ganagaaagt gagactttga aaggtcattg cncctgagaa ggaactgctt tcctggagga 600
cgnttgantt tctganaaaa ggctnttgaa aaaaaaaaaa ggctaacgg 649

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<210> 3687

<211> 310

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (172)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (277)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (297)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (305)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (310)

<223> n equals a,t,g, or c

<400> 3687

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gcttttgatt tataattgtg gtgggggagg ggaatcaaga caaccttagt cactttggta 60
ttaccataat tcttgtcttt tcagggttgt cctgttcagc tgcataaaac atcatgtatt 120
ctaggatatt cctaccttca cttacattat tacttgccga tgtgctgcct tnataaatgg 180
gtatattccg ccacacatct agtaagcccc caatgcagta cacaatgtgt atcactgata 240
aaactgcac ttctgccatg tcagtattat attcagnttn agtgggtcttt agcatantgg 300
cagtnctagn 310

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<210> 3688

<211> 468

3307

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (240)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (243)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (289)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (300)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (313)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (316)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (321)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (326)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (342)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (343)

## 3308

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (354)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (356)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (358)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (359)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (365)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (366)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (372)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (394)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (409)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (411)

<223> n equals a,t,g, or c

## 3309

<220>  
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<222> (415)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (423)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (425)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (426)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (427)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (435)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (436)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (437)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (439)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (444)  
<223> n equals a,t,g, or c

## 3310

<220>  
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<223> n equals a,t,g, or c

<220>  
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<400> 3688  
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tttgatcttc aggggaactgc atagattgat caaagtgtaa acaccatagg gacccattct 120  
acacagagca ggactgcaca gcgtcctgtg ccacaccag cttcagcatt tccacaccaa 180  
gcagcaacag caaatcacgg accactgata gatgtctatt cttgtttggg gacatggggn 240  
tgnntatttt ctgttctatt ttgtgcttta gtcccattcc ttgacacana gtaggggtan 300  
cccatccaat tancntttgg natggnttta gggattgggt tnnccctaaa aatnantnng 360  
ggttnttttt tnaaaaaaaaaa aaaaaaaaaat tcgngggggg gggggccgnt ncccnttggg 420  
ccntnnnggg ggggnnnana gcgncgtngg gggggggggg ggggtgtn 468

<210> 3689  
<211> 403  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature  
<222> (269)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (363)  
<223> n equals a,t,g, or c

<400> 3689  
agcaagccca ggcggcgggtg gaaaggtgat ggggctggag gacacaccta aacatgtgga 60  
atcccaaatgc cgggcagcca gggccaaatc catatccccc caatattggg tgccctggag 120  
gttccaatcc tgcccaccca ccacctatta atccaccctt tccccaggc ccctgtcctc 180  
ctccccagag agctcccat ggcaatccag ctttcccccc angtggggcc cctcatcctg 240  
tgacagacca gggtatccag gatgccaanc gttgggtcct accttctcca taccaacgct 300  
gccctggaat cctctgtgaa tccttgggtc ggcattgtga ccacatgata gtagacaaga 360  
gancagagaa aatgaagaag tcataaaaga tgcacagacc aaa 403

<210> 3690  
<211> 136

## 3311

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

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<220>

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<222> (36)

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<220>

<221> misc feature

<222> (68)

<223> n equals a,t,g, or c

<220>

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<222> (72)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (106)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (116)

<223> n equals a,t,g, or c

<400> 3690

gngccgcacc cggggcctgg gtgagactgc ggcggnngca gggcgcggtta cggccatatt 60  
tgccggcncg gnccaccccg cgcacaanaa aaagtgcgcg ggctcncggc gggcgntcgg 120  
actggcgctg ggactt 136

<210> 3691

<211> 420

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (173)



3312

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (183)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (236)

<223> n equals a,t,g, or c

<220>

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<220>

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<222> (280)

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<220>

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<222> (289)

<223> n equals a,t,g, or c

<220>

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<222> (291)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (297)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (305)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (313)

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<220>

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<222> (334)

<223> n equals a,t,g, or c

## 3313

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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (380)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (387)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (404)  
<223> n equals a,t,g, or c

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caagcataat atagcaagga ctaacccta taccttctgc ataatgaatt aactagaaat 120  
aactttgcaa ggagagccaa agctaagacc cccgaaacca gacgagctac ctnagaacag 180  
ctnaaagagc acacccgtct atgttgcaaa atagtgggaa agatttatag gttgangcga 240  
caaacctacc gagcctggtg atactggttg tccaanatan atcttagtnc nactttnatt 300  
tgccncagaa ccnctaatacc cctgttatct actnttancc caaaagaacg tctttggacc 360  
ttgaaaactt ttaaaaattt aatttanccc tggtggcggg ggcnccttaa aagttcaccc 420

<210> 3692  
<211> 430  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
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<220>  
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<220>

3314

<221> misc feature  
<222> (374)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (382)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (407)  
<223> n equals a,t,g, or c

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cgatagtaaa ttgaaacctg gcgcaataga tatagtaccg caagggaaag atgaaaaatt 120  
ataaccaagc ataatatagc aaggactaac ccctatacct tctgcataat gaattaacta 180  
gaaataactt tgcaaggaga gccaaagcta agacccccga aaccagacga gctacctaag 240  
aacagctnaa agagcacacc cgtctatgtt gcaaaatatg ggaaagattt ataggttgag 300  
gcgaacaaac ctaccgagcc tgggtgatact gggtgttcca agatanaatc ttatttccac 360  
ttttaatttg ccnncgaacc cnctaattccc ctgttaattt acttttngtc ccaaaagaac 420  
actcttttgg 430

<210> 3693  
<211> 506  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature  
<222> (345)  
<223> n equals a,t,g, or c

<220>  
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<222> (437)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (461)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3315

&lt;222&gt; (468)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (504)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3693

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gccccaaacc cactccacct nactaccaga caaccttagc caaaccattt acccaaataa 60
agtataggcg atagaaattg aaacctggcg caatagatat agtaccgcaa gggaaagatg 120
aaaaattata accaagcata atatagcaag gactaacccc tataccttct gcataatgaa 180
ttaactagaa ataactttgc aaggagagcc aaagctaaga ccccgaaac cagacgagct 240
acctaagaac agctaaaaga gcacacccgt ctatgtagca aaatagtggg aagatttata 300
gggtagaggg cgacaaacct accgagcctg gtgtagctg gttgnccaag atagaatctt 360
aagttaactt taaatttgcc acagaacctt tctaaatccc ttggaaattt aactggtagt 420
ccaaagagga acagctnttg gacctaggaa aaaccttgga nagagagnaa aaatttacac 480
catagtaggc taaagcagca ccanta 506
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&lt;210&gt; 3694

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (26)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (61)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (62)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (63)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (210)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

## 3316

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<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

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<222> (329)  
<223> n equals a,t,g, or c

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<222> (332)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (355)  
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<220>  
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<222> (422)

3317

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (430)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (451)

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<220>

<221> misc feature

<222> (491)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (492)

<223> n equals a,t,g, or c

<400> 3694

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nnnttttttt ttgagatgga gtctcactct gtcgcccagg ctggatacct gagaacttgt 120
aatccaatga gtagaaatgt tgggtactcca tttatggctg tcaacctgcc agttctcagg 180
agtttgtata aaagcctaaa tccgaaagg nctaatacca ttngggcccct tgtntccttt 240
tctgttgccct ttgcccactg gctntggaaa caggggtctt tctttctcct nggctatctt 300
tggatatggg gctccgtctt ntgtgccanc tnagggaatn cttttcaggc atggntaagg 360
cattaaaaag cttcagtttc agtaacattt tgagtgaagta ctctctgaag cttcgttgga 420
anttaggttn tttgcttgaa ggtaactttt nggctaataag tttttatcct aggttttggt 480
ttaggccct nngt 494
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<210> 3695

<211> 502

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<220>

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<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (102)

3318

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (122)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (160)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (190)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (197)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (264)

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<222> (288)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (311)

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<220>

<221> misc feature

<222> (319)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (355)

<223> n equals a,t,g, or c

<220>

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<222> (364)

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3319

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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (403)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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3320

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (485)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (489)  
<223> n equals a,t,g, or c

<400> 3695  
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gggccgcgaa ctttttttcc tcaagctttc ctgagccctt tnatctcgca cgaaatggga 120  
tnagtgaagg ggccggggct gcctggtgga ggggccccgn tcgcggcgag ccactccat 180  
ctgaattcgn atctttntcc ccggcaggag ctgaagaaga agctgttcaa acgccggcgg 240  
gtgttgaatc gggagcggcg tctnaggcac cgggtggtcg gggctgtnat agaccaaggg 300  
ctgattcagg nggcaccanc tcaagaagcg ggcgttccat tgcaagtggc caaanttaac 360  
attntcaagg aagaagnncc gaaaattctt ccagcaattc cgntttnncc agaaagngaa 420  
ggcagccttg gaattggaag cccttttaaa gccanccagn ttntnnacca anttaaaagg 480  
aaagnaggna aagccccag tt 502

<210> 3696  
<211> 311  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (153)  
<223> n equals a,t,g, or c

<220>  
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<222> (162)  
<223> n equals a,t,g, or c

## 3321

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<220>  
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<222> (178)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (233)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)  
<223> n equals a,t,g, or c

<220>  
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<400> 3696

## 3322

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gttagcaaaa cataactcaa tggaaagata ggcaaatgat acaaataaga aattcacaaa 120  
agaagaanta ctaagtctct agtgatgaga ganatgtaaa tnaaaatgaa acatgtningg 180  
nnntcaagtt gtcacaagtt agacaatcat atccaatatt ttanagggtt gtnagactgt 240  
naggnaatag ccactgtcat atcattttta aaggaatata aattataggg cctttngttt 300  
ctttgggttt t 311

<210> 3697

<211> 452

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (226)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (293)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (308)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (392)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (407)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (409)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (444)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (448)

<223> n equals a,t,g, or c

## 3323

&lt;400&gt; 3697

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atccccacaaa aggcaaggag gactgcagca cagggagtgg cccagctcac atggggtaac 120
aggcctctgt gcaggggttg tgtggcctgg aattgtgagt gggagctcag atgggatgaa 180
gagggcagcc ccacgggttg agcacatgga gggatgatgag tgcagngctg aggctgaggg 240
aggggctgca gaatcatagg gaccggtgac agagaagggg ctgggttagat gantaggtag 300
taaggatnat gggagcctgg cttcccagtg gcagacagag atgttggatt tgatttcaag 360
gtaatcttga aattactgtt gcaggctgct gnggaaaagc acatganana aatattaata 420
gtattttaaa aactaagaca aaangtanag aa 452
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&lt;210&gt; 3698

&lt;211&gt; 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (281)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (284)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (287)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (302)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (373)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (376)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (384)

&lt;223&gt; n equals a,t,g, or c

3324

<220>  
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<222> (397)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (398)  
<223> n equals a,t,g, or c

<400> 3698  
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gtgtgaagag gaagcgtaga cttgaggatg cattcattgt gatatccgat agtgatggag 120  
aggaaccaa aaaggaaaat gggttgcaga aaacgaagac aaaacagtcg aatagagcaa 180  
agtgtttggc caaaagaaaa attgcacaga tgacagaaga agaacagttt gctctggctc 240  
tcaaaatgag tgagcaggaa gctagggagg tgaacagcca ngangangaa gaagaggagc 300  
tnttgaggaa agccattgct tgaaagcctg aatagttgcc cggccttctg atgctttcgg 360  
taccagaatc ttngancttt tggncacttg gacccgnntt tc 402

<210> 3699  
<211> 435  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
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<222> (88)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3325

<222> (137)  
<223> n equals a,t,g, or c

<220>  
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<222> (190)  
<223> n equals a,t,g, or c

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<222> (198)  
<223> n equals a,t,g, or c

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<222> (201)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

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3326

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3327

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3328

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 cgggctncag gaattcggca cgagattnag aacagcttca tgactgcctc caagtagcca 120  
 ccgcctggat gcagatngcc ggagaggacc ggcggctcgg aggaagcccc caccgtgggc 180  
 agggagcagn cggccagncc nttngcccca ggacctggnt gccatacttt cctgtatagt 240  
 ttcacgnntc atgttaattn ctcangnaat tnaaaaangna ggncaaaaaga gntgttattt 300  
 ttttttaaaaa gtttttaaaa acagganagt nctngttngn tgtacatttt aaactngtnc 360  
 cccaaacttt nnncnttnga nccttttnna gngcccnagt tggggtnnca aggncagggg 420  
 tagncaagta attca 435

<210> 3700  
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3329

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ctgaangagc cgggacgcgg ggctctgggc ctcggaact gagccngtnc tcacctccgt 120  
accttctccc cgtcactgtc cgcacatgg ccctacttac cctaangacg tgggcctcat 180  
caacggnenc aaa 193

<210> 3701

3330

<211> 365  
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## 3331

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<220>  
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<220>  
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3332

<223> n equals a,t,g, or c

<400> 3701

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anatagttaa gtgggatcga gacatgtaag caacatcatg gaggtttgaa natgccgcac 120
ttggattgga ttaattccaa attctgcttg cttgctntnt aatttanata tgggttaaaca 180
cttacacnta atgcacaaaa tgtatgggta taataatggt tacatggaca tgatctactt 240
tataagtcta ctttgantgc nntctccata ttatgatgta tctaaacaag ttgctccaca 300
ggttactcta nnaaggctgg cccttagaag tnggggacca naagattctc ttgnccaaac 360
atcca 365
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<210> 3702

<211> 443

<212> DNA

<213> Homo sapiens

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<220>

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<222> (297)

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<220>

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<222> (328)

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<222> (371)

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## 3333

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agtaactgcc ccaccaaagg tcttaaaagc catttttgga gcctattgca ctgtgggttct 120  
cctactgcaa atattttcat atgggaggat ggttttctct tcatgtaagt ccttggaatt 180  
gattctaagg tgatgttctt agcactttaa ttctgtcaa attttttggt ctcccccttct 240  
gccatcttaa atgtaagctg aaactggtct actgtgtctc tagggtnaag ccaaaanaac 300  
aaaaaaaaatt ttactacttt tgaaaatngc cccaangttg caaaattata taattctaac 360  
ccttaaatca nttnaaangg ttggctgctt ttcaaccttg gccnctgtg aattccnacc 420  
caaggaagaa ccctggaaca aaa 443

<210> 3703  
<211> 477  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>

## 3334

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tgtataagtt agccaataga atttttaggt taaaacaaca gatgggggggt ttgtggagtg 120  
tttaatgtca tgggcatttt tagtagcata gaccctttgt tctgcatttg aatgtttcgt 180  
atatttttgt ttcacagtta atcttccctc cccaagtttg ctattcaa at caactgcctg 240  
aatgacattt cctagtaatt ctgaagttat tttcctgaag gaatan ttgg tgaatnccna 300  
tgcaggtttt ttccatacca atanccccc ccccgga aaaaccna aacccccctt 360

## 3335

antaaaaaaaa ccgncncttt ttttggggga aaaaattccc ccaaaagggg gaaaaaaaaa 420  
 nccttttaac caaaattggg ccccnngggg ggangggggg gggggnaatn ttttaat 477

<210> 3704  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

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 <223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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 <222> (334)  
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 tgaaacaggg gagctatgag agatgtgtcc atgtgaaatt tacagttact gcctagggag 120  
 ttaatgatcg ttctgggtca gcttgaatgt cccatttcta taaattcaac acttattttc 180  
 tgaattcata aaaataacca aaaaatgtga gctataatgt ttccctcaag aacaaacaga 240  
 aacganattt gccaaaaact aaaattcnac aaatgatttt tantgggana ttgggctttg 300  
 nctttagcgt gttaattgga agcactgccc tttngaccgg aattttact 349

<210> 3705  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens



3336

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<222> (62)  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<220>

3337

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<220>  
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<220>  
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cnacnctgtg ttatattctn tgaatcctag cccatctgcg aagcaatgac tgtgctcacc 120  
agtaaaagat aaccttttctt tctgaaatag tcaaatacga aattagaaaa gccctcccta 180  
ttttaactac ctcaactggt ctgaaacaca gattgtattc tatgaatccc agaaagatga 240  
aaaaaatttt atacgtttga taaaacttat aaatttcatt gattaatctc ctggaaaana 300  
ttggtttaaa aaagaaaant gttaatggca agaattttaa aaaatatttt ntaaanncac 360  
aattatttta ttattnggaa tatccaactg gcttttttaa aanggtggcc cccccctttt 420  
ttcccttgng tccnttgggc tnggtcaaaa aattccct 458

<210> 3706  
<211> 470  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<222> (230)  
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<220>  
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<222> (285)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3338

&lt;222&gt; (330)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (341)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (357)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (359)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (424)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3706

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gacgagtcca tcacctgcaa cttaaagtga caagcttaca tcccattttg agtgaagatt 60
ttgagggttt taatttaaag gctgtgtaca gttatacttt ttatacacc tggtcatttc 120
tacttaaatt atggcacaga ttgatgcgca ccagtcttga ggaaacgatc tccctattcc 180
cttaccctgt tactcancca cgccgtgtgt tagcttagcc tcaggtggcn agatgtttga 240
ggaaaaggaa ttatgccagg aaagtgggga ccgggtttat ggtcnggggt tcctattggg 300
aatgctcttt gttgcttttt ggcatcctn aatggaaact nttacattag aaccttnang 360
ttggaactcc cccccaaatc cgcccatatt tttaaaaatt tattttccac tcctattcct 420
tgcntttaaa acttggttact cctttttttg caaaatttta accaattttt 470

```

&lt;210&gt; 3707

&lt;211&gt; 296

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

3339

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (9)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (57)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (191)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (270)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (276)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (285)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (290)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (292)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3707

gngngngngng ggtccggaat tcccgggtcg acccagcgt ccgagtaa atctcatanaag 60  
cacatgaaga acagcagtga aaccaaggat tctagcaagg ccagctatta gcaaagcagt 120  
aagcaggaac tggactagat accaaatgat ggggaaacag actcatagac ctaagaacat 180  
agaagaaaga natgttgaca tcaacagaaa ggcaaaagg gcaatgcagc atctcttgcc 240  
ttctcctggt gtttttcccc cttaaattgn tttgangatt aaccnccaan cnacac 296

&lt;210&gt; 3708

&lt;211&gt; 333

## 3340

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (278)

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<220>

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<222> (290)

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<220>

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<222> (291)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (311)

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<220>

<221> misc feature

<222> (333)

<223> n equals a,t,g, or c

<400> 3708

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gcttttaaaa acgaacccca tttttgtgtg tatgtggaat attactacca ttcctgctgt 60
cttgtcttta gctctggaga aagttgagtc ttttttttag tctataaaaa tcagtgtcta 120
tataaatggt gttcaggctt ccaatataac agatggttgg ggtttctaga gcaaagggtt 180
tttggatttc tcttttttct aggttaatgc tttacgtcca gttcttttctt cattatttag 240
aaaagcctta attttttttt ttttttttaa aaaaagcncg gggcattttt nctaacaaaa 300
aaaaaatttt nttaaaaaaa aaaaccccca tan 333
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<210> 3709

<211> 348

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (67)

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<220>

<221> misc feature

<222> (299)

<223> n equals a,t,g, or c

## 3341

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<220>  
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<220>  
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<222> (340)  
<223> n equals a,t,g, or c

<220>  
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<222> (341)  
<223> n equals a,t,g, or c

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atagtanaat ttataccatt tttgctgcag agaatggcta cagatggagg ctggaaacct 120  
gctgttaatc tctagaacac ttccccacac cagtgtgccca cacattagat actttattaa 180  
gaaaatcact tcagtaaagt tttgaaaaat tatttcctag atctcttctt tttttccttc 240  
cccaataaac tttggttgca cacaaaaact gttactgaac cctatgaatc tagaacttna 300  
cttccaagga aaaccaatta ctnaatnttt tcccctgaan ngaaattg 348

<210> 3710  
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<212> DNA  
<213> Homo sapiens

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<220>  
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<220>  
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<222> (62)  
<223> n equals a,t,g, or c

<220>  
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<222> (98)

3342

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (133)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (158)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (181)

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<220>

<221> misc feature

<222> (257)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (266)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (282)

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<220>

<221> misc feature

<222> (293)

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<220>

<221> misc feature

<222> (296)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (301)

<223> n equals a,t,g, or c

## 3343

<220>  
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 <222> (305)  
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<220>  
 <221> misc feature  
 <222> (334)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (369)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (392)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (400)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (407)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (425)  
 <223> n equals a,t,g, or c

<400> 3710  
 agcgcancac cacctttgag aagtctctgt tgatgggcaa ngagttccag cgccgcgcca 60  
 angccatgat gctgcgggca gctgtgctcc gcaaccanat ccatgtcaag tccccgcca 120  
 naaaaaggac canggggaac ttactccacc aacaccantc ccggatgaac accaacatgt 180  
 naagggtgaa cttggcctcc aagacatctg caccctctcc ccacctccac ggaactcgga 240  
 actccaggcg ctcaatnctg cctgcngcca cttaaagggcc tngccatggt ttncnccca 300  
 ncctnttttc ctccctgggg cttaagaagc agcngttcta tttttgcctt cctggaaaga 360  
 aaagctcang ctccaccttt tgtttctttc cnggaacaan tgtcgcncca gccatggaca 420  
 ttccnaacct cttccctc 439

<210> 3711  
 <211> 484  
 <212> DNA  
 <213> Homo sapiens



3344

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (307)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (342)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (364)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (374)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (381)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (384)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (395)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (410)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (413)  
<223> n equals a,t,g, or c

<220>

3345

<221> misc feature  
<222> (446)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (462)  
<223> n equals a,t,g, or c

<400> 3711  
taaacttaca gacactgaat taatttcccc tgctactttg naaaccagaa aataatgact 60  
ggccattcgt tacatctgtc ttagttgaaa agcatatttt ttattaaatt aattctgatt 120  
gtatttgaaa ttattattca attcacttat ggcagaggaa tatcaatcct aatgacttct 180  
aaaaatgtaa ctaattgaat cattatctta catttactgt ttaataagca tattttgaaa 240  
atgtatggct agagtgtcat aataaaatgg tatatctttc ctttagtaat tacattaaaa 300  
ttagtctntgt tttggaatta attaagttcc ttttgggata angttggggg taatgtgggc 360  
catnccccctt aaanaaatcc nacnggttaa tatanccatt ttttattaan ggncccccttg 420  
gccaataaat taaccctgaa aacctncccc cgaaaaaac cnaaacttaa tcccccccca 480  
aatg 484

<210> 3712  
<211> 285  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (278)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (279)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (281)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (285)  
<223> n equals a,t,g, or c

<400> 3712

## 3346

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cttggtcaga tttgaactct tcaatctctt gcactcaaag cttgttaaga tagttaagcg 60
tgcataagtt aacttccaat ttacatactc tgcttagaat ttgggggaaa atttagaaat 120
ataattgaca ggattatttg aaatttggtta taatgaatga aacattttgt catataagat 180
tcatatttac ttcttataca ttgataaaag taaggcatgg ttgtgggttaa tctgggttat 240
tttgtttcca caagttaa ataatcataaa acttgaanna naann 285
```

<210> 3713

<211> 385

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (235)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (246)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (267)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (273)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (320)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (332)

<223> n equals a,t,g, or c

3347

<220>  
<221> misc feature  
<222> (335)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (341)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (349)  
<223> n equals a,t,g, or c

<400> 3713  
ggctggagct gctgctgttc tccctatcac tcgtggggaa gccaggcctg gcgagggtgca 60  
ggcacttgct gaggtcacgg cggccanact ggagcccaga actctgtctg cacctaagca 120  
cagtgtccct tacctccagc atctgagtcc catcgtctaa tgtggcttta acctcaggat 180  
cgggcctaata tctagaatcc tacctgcaag acaagcactg agactgaaac aggangattc 240  
cttganttcc aggaatttca aatccancct gancaacatn gtgaaaaccc catctctgca 300  
aaaaaaaaatga aaaattactn ggctgggggg tncnttctct nttaaatacnc ttcccgggaa 360  
gggtaagttt ttaaaaaatcc cctaa 385

<210> 3714  
<211> 387  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (293)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (320)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (352)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3348

&lt;222&gt; (373)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (387)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3714

```

gnaaacagta gtttctctgc caaaaattaa aattaaata accgttgtct gtttttagcaa 60
aaccactgct tggtagagta ttacaagatg tgtactatta aaaactcatc tttttcttca 120
gtgaatgtat attgagcatt tactgtttga aaatgcgttg ggtagcaagg ggagtctaca 180
ggggatatga gcctaataccg atacagagtc tgccttcagg gagttcacag cctcatgagg 240
aatagaaatt tctcactggt ccctaaaact ctcaaata aggtcttgca gantgtccct 300
tgcacatgtt ttccttcctn aattacaaga aatagcatgg aaaaaaatg cnttatgttg 360
actatagatt tanatataga atccccn 387

```

&lt;210&gt; 3715

&lt;211&gt; 84

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (40)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (41)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (55)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (57)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (81)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3715

```

cccattggga gccctgcccc agggggcaca tgctgtaatn ncaacaagtg tggcnaatg 60
agagatgacc atgtgtatcc ncct 84

```

3349

<210> 3716  
<211> 109  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (91)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<400> 3716  
ttaaanttaa tttgagacat ctnatthttcc ctctaaaaaa atgaagaaat ttttggatgg 60  
tcccatcccn cctccccctc cccagngggc nctctaaaga atngaagct 109

<210> 3717  
<211> 111  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3350

<222> (33)  
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<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<400> 3717  
aaccnaacg ccagcaggaa ccggtccgga aancccggt cgaccacgc gtccgatttt 60  
ngagtttttn tgatgccaat atcaacnggg ggatttttaa aaattgtnaa a 111

<210> 3718  
<211> 155  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (145)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c

## 3351

<220>  
<221> misc feature  
<222> (154)  
<223> n equals a,t,g, or c

<400> 3718  
gctcaaattc agccagctcc agctgcccct ggcacagagg agctgactga ggctccagta 60  
cagggcctgc tccttcccct cctgttcccc tcagtgtgcc ctgggccggg ggccaggcat 120  
ggtgggggtg gggaggctgn cngcngaggc cnang 155

<210> 3719  
<211> 381  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (336)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (347)  
<223> n equals a,t,g, or c



## 3352

<220>  
<221> misc feature  
<222> (358)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (360)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (368)  
<223> n equals a,t,g, or c

<400> 3719  
ctttntnttaa caaaactcaa ccncattagg ggggaaaang cntgngttac cgccctgggc 60  
caggggttacc cgggtcccgg ggaaatttcc cgggggtcgg gacccacgcg tccgcccacg 120  
cgtccggggg aagaacattt tgcttatggt ttaaagggtat gtattggggg aagaggagca 180  
ttatatatgg gaacctctca caaacacagg gattattttc ttattatact caattttcac 240  
cctgaataga gtgttttgat tatgtaagtt agatcgtaag tagatggctc tcttaaagac 300  
attttatggg tttgttggtg ttgtttgttt ttcgantcta ttaaatnaaa ggtcacantn 360  
ggagtagncg atacagagaa t 381

<210> 3720  
<211> 106  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (63)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3353

&lt;222&gt; (76)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3720

gccgaacgca ggagaaccga tccgnatncc cggtcaccca cgcntccata aattacatgt 60  
ctntgaaatt tcatnngggg cactaataaa attttcagac cctaatt 106

&lt;210&gt; 3721

&lt;211&gt; 236

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (17)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (21)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (28)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (40)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (55)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (123)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (172)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (219)

&lt;223&gt; n equals a,t,g, or c

3354

<220>  
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<222> (221)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (224)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (227)  
<223> n equals a,t,g, or c

<400> 3721  
tcgaccgta cagatgntgg ncagaagnat cccttaaata aattgtctta tcacntgggtg 60  
tgtattaagg aatctgacat ccacaccggt caacagtttg cagctaaatt caaaaaactc 120  
tgntgccagg aaattcagca cattctctgc acacgaaacc tttgcaccaa angagagtta 180  
tgactatctc aagacttctg gcttggcgat gttcatatng ngangangga gacttt 236

<210> 3722  
<211> 137  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

3355

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<400> 3722  
cttttntttt acggaacttc acctcattag ggggaaaaaa ggctggggtt accggccctt 60  
ggccagggnt taccggggtt cccgggnaat ttcccggggg tccgaacncc acgtcgntct 120  
cggaaaaaaa aaaaant 137

<210> 3723  
<211> 486  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (446)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (455)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (472)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (481)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (484)  
<223> n equals a,t,g, or c

<400> 3723  
ggtggagacc tgggagagag tgtaggaag accgaaaagg gcaggacggg gcctccactg 60  
cctcccattc ctgggtccggg cccacatagc cttctttgtc acaatcagct caggtatcca 120  
agatcagatt acccacattc attatttgag caactattca ttgaacagtt agaatatgtc 180  
tactctgtc agttgctggc tagaagtaga aagtaccaga tgagtgaat aattggccac 240  
tatccttggg agctgatgac taagtaagag agagatgcaa gacaacatgt ggaaaatgcc 300  
aaactgagta gcagtcacag ttgacatgct gcagagagag ctggccgggg gtcagaagac 360  
ctgggcacca gtcctgttca tttccagtgt ggcctcgagt cattcacctg acctcctgaa 420  
gttcattttc ccaagaagtt gtttantcca actgnccatc aaggatcttt anggaccctt 480  
ntanct 486

3356

&lt;210&gt; 3724

&lt;211&gt; 99

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (3)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (24)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (26)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (45)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (51)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (72)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (96)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3724

agncgaagag gcggaagaa aaancnaggg agaagccagg taccnccntg naggaaacgc 60  
ggtcgcggaa ancccgggtc gaccacgcg tcccantca 99

&lt;210&gt; 3725

3357

<211> 441  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (384)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (405)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (411)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (424)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (437)  
 <223> n equals a,t,g, or c

<400> 3725  
 ggtacccagt ggtggaagac caacacacac ctccgcagac agcccagcac gccagaaacg 60  
 gccacccgca ggccctgccca gccgctcacg aggctgtcta cagggagggc aagcccagca 120  
 ccccgagagtc ctgcgtctcc tcttcatcag ccatcatcgc caagccagga gagtggctcc 180  
 caagaggacg ccaggaagag cctcgcccag cccccacggg gacccccgc cagccaaggg 240  
 aggcgccccca ggaccagggc aatggagtga ccaccaggta agggggatat cacaaggcct 300  
 tgaacctgac tcttggagct ctgggagtgg gccgccccac gccggatgca agagcaccca 360  
 ggagacctgg aaagcttctc tgangcccaa cctttgacag gggangctaa ngagcagtgt 420  
 caanattccc agcggantgc a 441

<210> 3726  
 <211> 294  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (35)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature

3358

<222> (36)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

<400> 3726  
ggaatttctt ctggctcaga aatttcccct gtaannacaa tatccatttt ttttattatg 60  
gaagtagagt agcaaagngc aatttgcttt ataggaattg tttttatagg caaggatgaa 120  
tttattccag agagcataga atatctattg ggttacttaa tattactcat tttgggtaca 180  
gagccatttg cagcccattg tacttcagga aacagctgag aaaatgattt gtgtgtaaga 240  
aggatgtttc ccattcaatt nccatgggtg tgggaggagg ggctttncnn gngg 294

<210> 3727  
<211> 402  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (5)  
<223> n equals a,t,g, or c

<220>

3359

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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<220>  
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<220>  
<221> misc feature



## 3360

<222> (292)  
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<220>  
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<220>  
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<220>  
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<220>  
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 <223> n equals a,t,g, or c

<220>  
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 <222> (391)  
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 ggtanatatt tttatcacat taagaaagtt tccttctatt attagtttgc tgatatgttt 60  
 tcttatgtga atgtatatca aatataatca gatacttttt ctgtgttcta tgaacatatt 120  
 catgtaattt tttctgttaa tgtgatgaat tgtattgatt aaattttgaa tgttacaaaa 180  
 aagccatagc aataantccc ttctaattctt tatagcttcn nttnttcctt cttgcctnnt 240  
 tgcactggct ggtaccgnta cggngtnaaa tagaagnggg aataatggac antcttgact 300  
 tgttcccaat ntcattggga aagctttttaa tatncatcat taagtaanat tattgctatg 360  
 gcttttttggg aaatatatttn atcacattaa naaaggttcc tt 402

<210> 3728  
 <211> 104  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (14)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (43)  
 <223> n equals a,t,g, or c

## 3361

<220>  
 <221> misc feature  
 <222> (53)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (63)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (75)  
 <223> n equals a,t,g, or c

<400> 3728  
 tgcagcatgc tatngacaac atgaatgatt ctgagctctt ggnactatac aantggcgat 60  
 aancgtggtca aacgnaatga gaattaaggg aaatgcatgt acat 104

<210> 3729  
 <211> 270  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (233)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (253)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (259)  
 <223> n equals a,t,g, or c

<400> 3729  
 ggtgtaagga agacatttgc ggtgcttctt gtcctataat gattcaagta tatagtagtt 60  
 cttgaaagag tgtgcatata ttactcatct gcttaagaga gtgggttaat ggatatatca 120  
 gaggagccaa atacattttt ttcagaactt gaaaacccaaa ggatcatcatg agtgactca 180  
 aaagttagga caagtttatt acatttggga ttttcatctg tagccgtatg aanaaccctt 240  
 tccaatataa aancatggna tttaaattagc 270

<210> 3730  
 <211> 62  
 <212> DNA  
 <213> Homo sapiens

## 3362

<220>  
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<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<400> 3730  
gaaaactgtg gaatgtangn aaaccatact gcctaggttc ctttgnantc atctgaaang 60  
ga 62

<210> 3731  
<211> 53  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>

## 3363

<221> misc feature  
 <222> (43)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (50)  
 <223> n equals a,t,g, or c

<400> 3731  
 ggacacatnt tcgaaacact anaaaacaan aaatactacc gtnaataaan aaa 53

<210> 3732  
 <211> 247  
 <212> DNA  
 <213> Homo sapiens

<400> 3732  
 ggagtgggtt aggaggggcc ctcggggagg gaagaacaag gagagagggga agtgagagga 60  
 aaggaggttt ctcccttcac taaatcccaa gtatacaccc ttctaagggtc tggttctggcc 120  
 ctcccttagg gagtgccttc ccctctacct gccagggtccc atagataagg atgtccctccc 180  
 ctgcaggcgc ctggcctcca tcacagcatg cccactcttg tgcccgtgc aacctcctct 240  
 gactctt 247

<210> 3733  
 <211> 247  
 <212> DNA  
 <213> Homo sapiens

<400> 3733  
 ggtgagatca gctccttaaa tggggatttg aaaacattag ggcttcatta tgtacacaac 60  
 ggcagtgcct cattcatcat gcaaaaatca ctcccgttat taaaaatccc tgtggcagct 120  
 gcatgccggg gcttggtggc atcgtgcctg ctggggacag agcaggagct ccacagccct 180  
 gcctggtcaa agttgtggcc acgggacagg ggccccaagt cccagcctcc ctcttacaca 240  
 ggggccg 247

<210> 3734  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 3734  
 ggtcctgtta gagaggagaa agactgtaat gaaactacta gaccatttg ggctaaagtt 60  
 tggcttttcc ttcccttgagt catagaacat atccatctcc caggaaatgt ccttctcttg 120  
 cgtctgcttg cccttctgag tctgcctttt ttgcaactgaa cataagcact ttataactaat 180  
 gggtcacaaa tcttgacagcc cttaattttg gataagacca gattttcctg acatttttct 240  
 ttaacttaat ggaactatca aattataggg caccactgac tagactgata tgagatgagg 300  
 ctaaaagcct ttgaacacca cgctgtagtc tccaacagaa aaacaccacc aaaacagata 360  
 cccatgtt 368

<210> 3735

3364

<211> 99  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (26)  
<223> n equals a,t,g, or c

<220>  
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<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<400> 3735  
aaaaggggcc gtagtagccg angatnatac acggacntnt atanggggaa tgattggtcc 60  
tncctgcngg tactcgggtcc gttaattncc gggtcgacc 99

<210> 3736  
<211> 278  
<212> DNA

3365

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (243)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (257)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (270)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (275)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (278)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3736

```

gccgggtttc tccaggccct tggcctggat ggggatgggg tcataggtct gcacagagca 60
ggcgtagacc cggctttctg ggcagtgtgc tgagttctca gttcctggcc ctgtgtacgc 120
tgaaaccctc cctggtggtg gagctggcaa gagacctgct ggagttcctg ggcagcgtga 180
atggtctctg cagcagggcg agcctcgtca ccagcgtggt gtgggccatc ggcgagtcct 240
gtngggacct acgatcngga ggtgcacccn tgganccan 278

```

&lt;210&gt; 3737

&lt;211&gt; 303

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (264)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (298)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

## 3366

&lt;222&gt; (301)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3737

```

aagttgaggg agctcatatc caggcaggag ccgagcaagg tgccctctac agacctctgc 60
tgtatatggc tgtgaatatg ttgctgttct tggttcctgt gaattcgtga ttctggatgt 120
tctacattgt cctagaggcc ccaaaaagga tgggaagagg agcccatctg ccctgggtgct 180
gaacatgtag ggatcgtggc taccaccacc ttcagctacc agcagatttg cagttcctct 240
cttccttaaa ttccttgtgt gcanacaaaa ataaaatctt cttcctctga tgaaaaanaa 300
naa                                     303

```

&lt;210&gt; 3738

&lt;211&gt; 444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (253)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (259)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (270)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (332)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (397)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (402)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3738

```

gtaaaaataaa aagcctcctg tttccccatc ccacttcctg aaggtaatga ctataacatt 60
tcttatgtgt actttcagat taattttact tatttaatag catatgtcct taaaatattt 120
tcgacaaata ggattatcat ttcatacta ttatcgttct catactgcat cctccttttt 180
ttgcttcatg atttttctta gaaatttttg ataaccagca tatacagatt ttacatttct 240

```

## 3367

cttagcaacc agnatagtna cctagcccn tgtttgacag aatgtttaaa attgtgttta 300  
ttattttttc ttgtcacaaa ataatgctgc antggatttg tatatatatc tttatattct 360  
tgaaatggac ttagtaagtc agaggctttg tgaattntca gntttggtag attttaccat 420  
attgccctcc taaaaggtta tacc 444

<210> 3739

<211> 50

<212> DNA

<213> Homo sapiens

<220>

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<220>

<221> misc feature

<222> (13)

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<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<400> 3739

gcccacgcnt ccnccacgc gtccgaaaaa aaaaaanagg ggaattttaa 50

<210> 3740

<211> 112

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (46)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (68)



3368

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (93)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (104)

<223> n equals a,t,g, or c

<400> 3740

ccaanaaaga aagcgaacgc ccgaggaccg accggaaaac ccgggncgac ccacgcgccc 60  
gttttcantt aacncaagta cgtttaattg ggnacagagg aagntaaaag aa 112

<210> 3741

<211> 225

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (188)

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<220>

<221> misc feature

<222> (197)

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<220>

<221> misc feature

<222> (203)

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<220>

<221> misc feature

<222> (213)

<223> n equals a,t,g, or c

## 3369

<220>  
<221> misc feature  
<222> (218)  
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<400> 3741  
gnagaagtct gagatgagaa aaaaatgata taatatccac ctactacata gtgggtagtt 60  
tatatactaa agttattggt atgagaaaga atggcttagg aatattattt aaaattaatt 120  
aaggggggtgt taaaaataaa ataccaagtg taaaaatgac aaaggcaaga agaaacagta 180  
tataatgnga gtaaatntta atntttccaa ganagganac agtac 225

<210> 3742  
<211> 204  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (138)  
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<220>  
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<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (180)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (195)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (202)  
<223> n equals a,t,g, or c

## 3370

<400> 3742  
gttttagattc tgccctgtgtg gtcatttttaa aacatgtgtg acatatatca ntaccttcat 60  
tcttctatat tttgtgtctc ctccaacctn caactttttt tgttttttga aaaatgattc 120  
tctaacacct caacagtnta aggtaattta ntacacatat atcagtattt ttgtgatctn 180  
aaaaagcaac ccatnttcta antt 204

<210> 3743  
<211> 201  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
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<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
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<222> (38)  
<223> n equals a,t,g, or c

<220>  
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<222> (81)  
<223> n equals a,t,g, or c

<220>  
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<222> (92)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

## 3371

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (168)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (184)  
<223> n equals a,t,g, or c

<400> 3743  
agtggaaaac ncnactatag ggtttagntg gnacgccngc aggtaccggt ccggaattcc 60  
cgggtcgacc caccggttcg nccacgcgtt tngggagcat ctactggtgc aggcagacaa 120  
nccaaatata naaggaaaag gtggaaatga acgcccaggc gtncaaanct ctattcttaa 180  
ccanttatgc taaaggcaag a 201

<210> 3744  
<211> 50  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

## 3372

<400> 3744  
gctgcaatgt tacctgaggc ttcatttnnc ttneccancc gtgccaccat 50

<210> 3745  
<211> 63  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<400> 3745  
tttggaaatgc ctgntggaac gtccgcaggt accggtccgg aattccccggg tcgacccacg 60  
cga 63

<210> 3746  
<211> 355  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
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<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (63)  
<223> n equals a,t,g, or c

<220>  
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<222> (93)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

## 3373

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (194)  
<223> n equals a,t,g, or c

<220>  
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<222> (231)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (266)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (288)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (298)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (333)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (355)  
<223> n equals a,t,g, or c

<400> 3746  
tatanggaaa gttggtacgc ctgnaggtac cgggccggna ttcccgggtc gacccacgcg 60  
tcnggacctg aaactgatcc acaggcatatc agncaataaa tgagctttca atgaaagcag 120  
gtcaatagaa gaaaataaat natttcaatt aatggacttt catatggagg tgggggagac 180  
caacaatgnt attntccctc acactacata caaaagtaat tggagggtgca ntatacacca 240  
aaacttaaaa gttaaagata taaagnattt caaggatact ctgtaggnaa agattagnct 300  
accaacaagg aggacactga aaaatattat aanaagacat gataaattag acttn 355

<210> 3747  
<211> 281

3374

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (259)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (271)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (274)

## 3375

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (275)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<400> 3747

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cnttggaac ctttaggggn aaccgctatg accatganta cgncaagctc taatacgact 60
cactatatgg aaagntggta cgcctgcagg taccgggccc gaattcccgg gtcgacccac 120
gcgtccgctt ccattatccn taaatattga taaactccca ggcnccaaag aaaacattgg 180
cttaattgtc tgaaaagaaa caagagaaaa acactgggtat ttttatgtct gtattcaata 240
tggtataaaa tataaaaant atattttaac ntanngaaan a 281
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<210> 3748

<211> 67

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

<223> n equals a,t,g, or c

<400> 3748

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ggaaaaaatt agagtgttca aagcaggccc gagggggcgc tcgagaggna aggnntggtn 60
```



## 3376

tgccgng

67

&lt;210&gt; 3749

&lt;211&gt; 475

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (319)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (395)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (458)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (460)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (469)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (474)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3749

```

ggggggtagg aggaagagat ccagtcccag atacaggtga agaaatccct tccctgggtct 60
tcatgctccc tgtacgccac tgtctcttag atataattat cccaccctc tgctcatttg 120
tttcccagat tcaatacatt gtcaaagcct cttgggtcctt ttttaacatc tcacacttgt 180
gtcattctct ccatteccat aaacctcaac aactgctcaa agtcctgctt gacccttgt 240
tgccagtctt tgaaatcttt cttgcatatg actgcctcat taccttccta aaatctagtt 300
cactcgcccta ctcaagaana cacaggggcc tactgtggtg tattagataa gttcacattt 360
cttctcttta ctaatctttt tacttccttt accancactt cccttatata aattccatca 420
ttctaattag aatctggttt cccctacaca ttcctgncn tctttcacnc ccana 475

```

&lt;210&gt; 3750

&lt;211&gt; 104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3377

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<400> 3750  
aggcccaccg gggaaacact taggaaaant cccgnaaggc cccagcaggg accggaccgg 60  
aagaccncgg ccnaccacg ttttcnaacc attttaaacc aaag 104

<210> 3751  
<211> 103  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>

## 3378

<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<400> 3751  
agctacnaaa aatannagcg gaacaagcaa agcnaggcat aaggtacaga ttccggctcg 60  
aagacaccag acngaagcaa acagctgcgc atccaaacca aca 103

<210> 3752  
<211> 112  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (82)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<400> 3752  
ganttcccggt ttcgattcac gnttccgaca cgcggcagcc cncgggagag ctggggtcagg 60  
nccggaaaag ccacacctga anctgaggct ggaagcccac gacntcctga tg 112

3379

&lt;210&gt; 3753

&lt;211&gt; 116

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (37)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (44)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (46)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (87)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (114)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3753

gngaccgtta cacttgccag cgccctagcg cccgctnctt tcgntntctt cccttccttt 60  
ctcgccacgt tcgccggctt tccccgnaag ctttaaaccg ggggctccct taangg 116

&lt;210&gt; 3754

&lt;211&gt; 144

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (28)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

3380

<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<400> 3754  
tgactcttaa tgcctatggc aatatgannt tacttgaaga aacatgatac atctttaatg 60  
naaacacagc gccacttcac aactanana atgtgggaga ccnaatatct gagttaggna 120  
agaatttaaa aaaacacata aggg 144

<210> 3755  
<211> 123  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3381

<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (118)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<400> 3755  
tgaccagnng nggcaactgt gangccccggg ccggtgagga ggaggagccg cagccnggag 60  
agaaggtcag cgccggcggg agcgntctggg cctccgcct ccgtcctcac gnggcccna 120  
cna 123

<210> 3756  
<211> 655  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)

3382

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (93)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (309)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (589)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (631)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (639)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (644)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (651)

<223> n equals a,t,g, or c

<400> 3756

nggttcccct gcaggtcccg gtccggaatt cccgggtcga tccacgcgtt cgntnccaga 60  
nctttgttgt gngtgcccct tgaggcggtc atncagcact gtttcagaga aatccctatt 120  
tcaatctatt cctatacggt agttattgaa aagcaataga caatcacaaa aaacaagttg 180

## 3383

```
acctttttgt gttccttgag ccaaagggcc ctcatgactg ggccctcacac cgaataactc 240
gttacaaaaa gagctaggggt cccagactgc gccaaaagct tcaggagact gtcctctgtc 300
tgtgcacana tgagtggcca actctggagc ccagggtgtt gcttcctagt ctggtggtga 360
atccttcata gtctgaggtg cttatttagc aaattcaacc ttaaacctga gtgcatggaa 420
actattgatg cagtgtccaa ggtggagaaa ggtcagagtg gatccagagg agccaagaga 480
agacgtccag catggtgacc tgggctcaag tcaaggctcct tatttctctg atttctggtc 540
agaaaacaca tcttcaggaa aatcacccct gactcaccca ggctaagtna caagcttttg 600
gtataagggtc tcatcacacc atatgcctct ntttaaaanc aggnccctgca naaat      655
```

<210> 3757

<211> 240

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (127)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (179)

<223> n equals a,t,g, or c

<220>

<221> misc feature



3384

<222> (182)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (197)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (230)  
<223> n equals a,t,g, or c

<400> 3757  
aaaannnang gaaatccata atgaaacagc aaaaaagtac tccgctgctg ggtttggaca 60  
atgaacatgg gattagtccc aagctngtag cttggaacgg tagcattttt gcctgcgtga 120  
tccttgncag ctattcacag aaggaaatct tccgaaactc cgtctttcat ttagccggng 180  
angctgttat ctttctntgc aattagcatt catgtgggtn tategctctn tccaactctg 240

<210> 3758  
<211> 179  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3385

&lt;222&gt; (62)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (138)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (150)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (156)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (167)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (179)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3758

ccccagccag cctaagacta ngaatgtgga gcctgaagat cnaagatccn ancatgtaca 60  
tngtatggaa atatgtgcat atttgtacat aaaatgatat tctgattgat aaataaacag 120  
acaaaacttg aaaaaaanaa aaaatgcagn aatccnaagt aaatggncgc ctaactagn 179

&lt;210&gt; 3759

&lt;211&gt; 521

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (23)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (59)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (71)

3386

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (293)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (435)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (454)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (461)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (470)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (501)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3759

```

gatatttttcg cgcgcgcttt tgnaaagtag ctttggtac gtgggcgggc agatttttna 60
aagttccatt ngcactgcag cgctgtttgc gtcctaatg cgatattgta atgtttaata 120
tccagctatt atgtagcttt atctttttca gcttctaata ttttggtgct gtttaatttt 180
tttgcatgc cttttagtcg agttgtatat acgaagtcac agtaagaaag ccaattctaa 240
gactcctaag gaatattatc ggtaaatta cagaaggcaa atcccctctt tangatggga 300
gaatggactt gaagggagga atgtggcaag ggtccctcag aagtgaggga gcccgctgtt 360
cctccttcag gcatttgcgg atggcactgg tgatcacaaa aaagcggaga ttacgctgcc 420
gggcgctcct gtggnagagg gactggaaca ctgncccatg ntgagtgaan aatgccatca 480
actttaccag gtgccccgta ncctaaagcc acgtccccac t 521

```

&lt;210&gt; 3760

&lt;211&gt; 99

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (14)

3387

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (21)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (47)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (68)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<400> 3760

ggacgacacg tagntgacaa nnagggaccc agaccccgcc gggaccngaa ctcnnggttt 60  
cgacccgnng cgctataccc gnttgantc aaaccccaa 99

<210> 3761

<211> 388

<212> DNA

<213> Homo sapiens

3388

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (118)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (120)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (127)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (176)  
<223> n equals a,t,g, or c

<220>

3389

<221> misc feature  
<222> (188)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (200)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (239)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (265)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (272)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (277)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (278)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (290)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3390

<222> (336)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (359)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (376)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (386)  
<223> n equals a,t,g, or c

<400> 3761  
cgaaccgggc catcgngcct gatagacggg ggntcgcccn atgacgttgg agnccacgnt 60  
cttaatagtg gactcttgat ccaaactgga acaacactca accctatctc ggactatnch 120  
tttgatntat aagggattct gccgatttcg gcctattggn taaaaaatga gctganttaa 180  
caaaaatnta acgcgaattn taacaaaata ttaacgctta caatttaggt ggcacttnc 240  
ggggaaaagg tgcaccgaac ccnnatttg gngatanntc taaatacatn caaaaatgta 300  
tcccgtcat ggagacaata accctgataa atgctncaat atattgaaaa aggaagagna 360  
tgagcattca acactnccgg gcgccnta 388

<210> 3762  
<211> 276  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

## 3391

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (116)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (126)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (146)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (224)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (233)  
<223> n equals a,t,g, or c



3392

<220>  
<221> misc feature  
<222> (242)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (243)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (253)  
<223> n equals a,t,g, or c

<400> 3762  
acnnctgcag gaccggccgg aattcccggg tcgacccatg cgtccgggca tntttaaaca 60  
agacaaataa aaacgttaag ngggaacaan tcacagagag ccacaaagcg gatttnacac 120  
angccnagca naccanaact ctcggnagtg gctacaaggg aanaaaaggac tatgtggatc 180  
cctgggggct atgcaaatac ctacctcaca agagttgttg taanaagact ggnngggttg 240  
gnncaaacct tnggattaaa gagtttgcaa cgcatt 276

<210> 3763  
<211> 382  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

3393

<220>  
<221> misc feature  
<222> (116)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (185)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (209)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (254)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (274)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (317)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (327)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (348)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (370)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (374)  
<223> n equals a,t,g, or c

## 3394

&lt;400&gt; 3763

```
tgagcangan ttaccaacgt aataccaacg ggctaganat nggtaacanc cctcaaaccc 60
tacgagcttc tgtaggctat ctgcataatg tgcccatgt aggaaaagat tgggtncagc 120
agacaccgta agccatatag tactgtggtg cttagcaaga aggctttact tatctgtgga 180
tgttntcttc aaaagcagct tcaggtttnt agttggttca catgtccttt caggctctatt 240
aacctgatag gtcnggctga ggcgggggca attnttatcc aggtataatg taccacacgt 300
ttaactcctg cccaatngat gaatgcntgg tcagaaggac ctcatagnng tcttaccctt 360
tgaggggctn gttngtgatt ca 382
```

&lt;210&gt; 3764

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (14)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (33)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (35)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (52)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (175)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (286)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

3395

&lt;222&gt; (301)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (303)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (326)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (381)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (383)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (411)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3764

```

gtgtntctgc ctantaccag tattagttag acngnggatt ttatcagagt tnaatgaaag 60
aaagcttacc cctgccctca ctttgtgttt tttatttttc cccctttctc aagcaccacg 120
tatttggacc tgagaagtgg catagctgct aagttgactt ttaataaaaa actgnttgtg 180
cctgagggaa atatatgcct ttttaaaaaag tacctcagaa catgttccta gatcgtctca 240
tcggttttgt ttggtgggga ctgggaagtt cagcaggaag tattgnctgt gtgtgatgac 300
ngngcagtat tgccagtcgg caatgntgta ttttgcattc ttttatccct aactctgaat 360
ctaggactcc atgaaaagcc ngngtcaccc caaaacattc ttccaataca n 411

```

&lt;210&gt; 3765

&lt;211&gt; 122

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

## 3396

<220>  
<221> misc feature  
<222> (26)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

<400> 3765  
ggannacagc cagagcgaag acgccnagac tgcagaggaa acggaggctg agcggngagc 60  
accaaggctg gcncttcag caccagccgc agcatcaggg ggcccgccca aancaaggca 120  
ng 122

<210> 3766  
<211> 357  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

3397

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (93)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (183)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (203)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (223)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (226)  
<223> n equals a,t,g, or c

<220>

## 3398

<221> misc feature  
<222> (227)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (240)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (241)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (303)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (312)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (329)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (341)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (357)  
<223> n equals a,t,g, or c

<400> 3766  
gctttactgg atcacattng ntacagaaac ccaaactcat tatgatgata atttgaccct 60  
tttagaagaa ncctgngata atttacatgc canccataat ngaatctcng gtacatggca 120  
catgcattcc agtatggaac actntctagc cctaccctta tcctttaagg ctcaggggac 180  
agntactatc actgtgaagc ctntcccgtgta acactctggt tangnnncaa tattgccacn 240  
naaantggat gtctaggttg tgggggttcg ggggtcaatg cctcgttcca ctccagatat 300  
tcnggcactt tnccatcatc cttcatagnc tccacataat ngggcagtca ataatgn 357

3399

<210> 3767  
<211> 152  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (116)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c



## 3400

&lt;400&gt; 3767

gggtaaaatn ccccggtgn acttattagn gtggaaaaaa ggcnttgagg taccaccttg 60  
gcaggggtaa ccccggggtc cccgggaatt tccccgggg gttcgnaccc cnacgncggt 120  
ccggcattta tttcannaat gattggaaaa gg 152

&lt;210&gt; 3768

&lt;211&gt; 134

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (16)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (72)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (98)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (114)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (119)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (123)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3768

## 3401

aaacnnggcc a cgcnnnggcg cagcctgaat ggcgaatggc tgctttgcct ggtttccggc 60  
atttttaaac cnggggcgga aaggggggct ggaggggnag atttttaaaa acgncgatnc 120  
ccnggggccc aaaa 134

<210> 3769

<211> 159

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (122)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (133)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3402

&lt;222&gt; (139)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (148)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3769

```
ccncctccng taaaggnccc gggcccgggc ccaaaggncc ncccgggccc gggggggcca 60
aagggggggc cccaagggg ggttttctaa ggggaaaggc ccaaaggnc ctctccaaac 120
cnccaaattg gnggggggna aattgggngc gcggaaagg 159
```

&lt;210&gt; 3770

&lt;211&gt; 553

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (487)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (523)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (532)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (549)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (552)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3770

```
gtatttttagc actaatttaa actgttttgt aatccctcta gacatctaata ctgtggcccc 60
agtgagtgca tgtgcaatgt tttgtagcgg tcattttttt ttaagtatta acacaatcat 120
acttcctctt taaaaggagt aaaatgtgtt agaatggcta ctgctgctgt tagaatctgt 180
gaaaaaggga aagtcacctt tcacctaggg ggtcctgtgt gtttcttgga agagaggggc 240
ctagagtaag tacatgcccc ttctccaggg tgctttcaca tgtgtttgaa tccatccctt 300
gtcacttgtg atccaggctc aggtaatata aggtttcgtg gtatgccatc ccatgaccaa 360
aacttgtatt gctagaggcc acgaccagta ctgaaacact caagaatata cccagttcaa 420
```

## 3403

tgctcagatt aacttttgat actggcatgg gcataagcat ctggtcctac ctctcctgcg 480  
tcacctntca gctgtatcat agccactgcc aagaagtgtt ccngtaacca cncttagctt 540  
aaggagccna cnt 553

<210> 3771

<211> 76

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

<223> n equals a,t,g, or c

<400> 3771

gcccagtcnn gctaattcca gaaacttgtg gttttttcat agggctgtgc tgncantgac 60  
tagcatggng caatga 76

<210> 3772

<211> 60

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

## 3404

<223> n equals a,t,g, or c

<400> 3772

gctcacanat tattaagtat acctgaatct tggtttcttt ttataactga gnaataatgg 60

<210> 3773

<211> 480

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (386)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (460)

<223> n equals a,t,g, or c

<400> 3773

gccgcctggg ccgccgcctc ttgtcagccg ccgccaccca ggccgtgcct cagaagaact 60  
cataagaatc atgcaagctt cctccctcag ccattgatgg aaagttcagc aagatcagca 120  
acaaaaccaa gaaaaatgat ccttgcggtg tgaatatctg aaaagagaaa ttttccctac 180  
aaaatctctt gggtaagaa agttctagaa tttgaattga taaacatggg gggttggctg 240  
agggtaagag tatatgagga accttttaaa cgacaacaat actgctagct ttcaggatga 300  
tttttaaaaa atagattcaa atgtgttatc ctctctctga aacgcttcct ataactcgag 360  
tttatagggg aagaaaaagc tattgnntac aattatatca ccattaaggc aactgctaca 420  
ccctgctttg tattctgggc taagattcat taaaaactan ctgctcttaa cttgaaaaaa 480

<210> 3774

<211> 100

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c .

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (33)

<223> n equals a,t,g, or c

<220>

## 3405

<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<400> 3774  
gaaccccgga ggagggngag gagcaatata tgnacaatac ataatggcng ggcgaagaat 60  
ataaatgaga tactatacat tagaaattna caagcattgg 100

<210> 3775  
<211> 129  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (92)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<400> 3775  
atggntaatg ggacagacgg ataattaccc gaattaacaa ccacactgct tngaattncta 60  
cncacagatg caccacgtac actaagtgat gngggtaatg ctaactacat ttaattggng 120

3406

ataaaatcc

129

&lt;210&gt; 3776

&lt;211&gt; 124

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (19)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (87)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (104)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (111)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3776

cncccagcgc cggtcagtnC tagatgacca cctatggaga gtactccnnt aacagccatg 60  
accctcacta cgggaggcag actcacngat tgtgggaaac actnatgggc ngatgtaaga 120  
aata 124

&lt;210&gt; 3777

&lt;211&gt; 77

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3407

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<400> 3777  
ggctcttgga gtgcanatgc caaaactgag tgggtggatg ccaaacacca catncttgct 60  
cattctacnt ttnatna 77

<210> 3778  
<211> 383  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (324)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (333)  
<223> n equals a,t,g, or c

<220>



3408

<221> misc feature  
<222> (338)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (378)  
<223> n equals a,t,g, or c

<400> 3778  
gccccacgcgt ccggtgcgct cgcggttctc tcgcggaggt cggcgggtggc gggagcgggc 60  
tccggagagc ctgagagcac ggtggggcgg ggcgggagaa agtggccgcc cggaggacgt 120  
tggcgtttac gtgtggaaga gcggaagagt tttgcttttc gtgcgcgcct tcgaaaactg 180  
cctgccgctg tctgaggagt ccacccgaaa cctccctcc tccgccggca gccccgcgct 240  
gagctcgccg acccaagcca gcgtgggcga ggtgggaagt gcgcccgacc cgcgcctgga 300  
gctgctcccc cgantgcccc tggntacaaa ggntgctnag catgagccgc ccgcctggga 360  
ccccgttgcc ccaattcngc cgg 383

<210> 3779  
<211> 67  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (63)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<400> 3779  
gaagaaattg ataaagtaaa agcttcgtta tacatttctt tttgggaggn gncatcgnct 60  
aanntgc 67

3409

&lt;210&gt; 3780

&lt;211&gt; 191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (17)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (30)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (84)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (106)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (131)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (170)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (183)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (185)

&lt;223&gt; n equals a,t,g, or c

## 3410

&lt;400&gt; 3780

taacccggca ncccttngca aacctttaan ttaagggggg ggggtaaaaa aaagggccct 60  
ttgggggttt aaaccgggcc ccnnttgggc ccaaaggggg ttaancctc cggggggttc 120  
cccccggggg naaaaatttt ttccccccgg ggggggggtt cccggaaacn ccccaaaccg 180  
tcngnttttt c 191

&lt;210&gt; 3781

&lt;211&gt; 53

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (17)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (18)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (28)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (47)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3781

ggactanttc tagatcnnga gcggccgncc tttttgggtg tccgttnac gta 53

&lt;210&gt; 3782

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

## 3411

<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (287)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (342)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (356)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (357)  
<223> n equals a,t,g, or c

<400> 3782  
ggaacancct gaaggactgc ggccctcttct gaggggcagc ggggcctggc gggatgggcc 60  
accgccgact ttgtaccccc caaccctga ggaagatggg ggcaagaaga tcacgctccc 120  
cgcctgttcc cccgccgctt ttctcctctt tcctctcttt gttctcagct cccctgtcc 180  
cctcagctcc agacgtaggg gaggggttgc cacaggcctc cctgtttgaa gcctgccctt 240  
gtctgaaatg ctggtaatgg ccatggtacc cccttctggg catntgntct ggtttttaac 300  
cattgcttgt tctgtgatga ggggaggggg gcacatgctg antctcccaa ggctgnntct 360  
ggaggggccc ctggt 375

<210> 3783  
<211> 265  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

3412

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (124)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (188)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (230)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (257)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (262)  
<223> n equals a,t,g, or c

<400> 3783  
gcggactngt gggggcngtt tgatcactga tcgagtaagg aatgaccttt aattggggcga 60  
attttggttt tggtttttta aaatTTTTTn aaccagaat gatttctcct gcttccttct 120  
nctnaccatc ttcccagacg gagttcaaag gccacttctn aagcagcttt tggcaccttt 180  
agcctcanaa gtggaatctt ttaaagacag gacccttatg ttcagggaan gggaaaangg 240  
acttttgcaa tgatagnac cncag 265

<210> 3784  
<211> 505  
<212> DNA

## 3413

<213> Homo sapiens

<220>

<221> misc feature

<222> (411)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (421)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (470)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (485)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (491)

<223> n equals a,t,g, or c

<400> 3784

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gtgatattat actctatcct gggccagaga agataatggt ctttaatggt gtccaggaaa 60
ccctggccttg cttgccgagc ctaatgaaag ggaaagtcag ctttcagagc cagtgaagga 120
gccacgtgaa tggccctaga actgtgccta gttcctgtgg ccaggagggt ggtgactgaa 180
acattcacac agggctcttt gatggaccca cgaacgctct tagctttctc aggggggtcag 240
cagagttatt gaatcttaat tttttttaat gtcaagtttt gtataaataa taaagaactc 300
cttattttgt attacatcta atgcttcaag tgttgctctt ggaaagctga tgatgtctct 360
tgtagaagat ggactctgaa aaacattcca ggaaaccatg gcagcatgga nagcctctta 420
ntgattgtgt ctgcattggt attgtggaag atttaccttt tctggtgtcn taaagcttaa 480
attgnttttg ntgggacttt ttacc 505
```

<210> 3785

<211> 226

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (189)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (198)

3414

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (204)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (215)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (224)

<223> n equals a,t,g, or c

<400> 3785

```
gcgtggttta gacctgctgt gtggcagaca atgggaagcc tgtgtgtcgt cctgggtgcc 60
ggatttagac aatatttagc tttcccttgg tggaaaagcc tttcccctcc tgctttgggc 120
aggaactggg tcctgttggg cggggcctgg ctgctgcccc acccccaccc ggcgggcacc 180
ttgaccggn gctctccnga ctgntccctg cctgngcccc tganca 226
```

<210> 3786

<211> 177

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (169)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (171)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (175)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (176)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (177)

## 3415

<223> n equals a,t,g, or c

<400> 3786

agaaattcat gcattctatatt ataatacctt ttgatacatg tgaaaattaa gaagtttggt 60  
tcagtacttt agaaatacaa tgaggggaata tccgatctag cctgggtccag gaaaagggaa 120  
gaagactgag gcagcaggaa aggctatcag gaagtaaacc ctccggggnc ntggnnn 177

<210> 3787

<211> 50

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (39)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (48)

<223> n equals a,t,g, or c

<400> 3787

gactaagttt tagatcgtna gcggccgccc ttttttttng nttttatnga 50

<210> 3788

<211> 177

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>



3416

<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (168)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (173)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<400> 3788  
ggaagtntta tgttttatga ttgagcatta gtgtcatnct acaatcagcc actccncaaa 60  
ngttgcatca ctgaaactcc aggtttcaca gagaatttcc taaggnatta ggtttgagtt 120  
ncttccttcg tgggatgcta tggattcttt aaccaaacca gcctaatntt tcnnctg 177

<210> 3789  
<211> 196  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3417

<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (78)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (143)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (146)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (180)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (196)  
<223> n equals a,t,g, or c

<400> 3789  
gcagggnntt tccccagttt ctgacttgaa gtagactgng aagaatccac gaggtgctat 60  
ccggccagan ttaagnanat tctatttcct tggttctccc tctccctgag gacctcttat 120

## 3418

tttattgncc cctcttctag gtnaantctc ctttgatttg actttgttga gaaggaggtn 180  
ggacagtaga ttagcn 196

<210> 3790

<211> 197

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (76)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (90)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (115)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (151)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (168)

3419

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (169)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (170)

<223> n equals a,t,g, or c

<400> 3790

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gaaagggtttn aagtgggtatg cagtgnntttt atgtcctnca taactgattt aaattagtag 60
gactatttttn atcttncaac ttttaatttn cttataaaaag tcaagtaaata acaangattg 120
ttattagctg aatagcagat gagatctcag natttaaaaag aacagatnnn ttcttataaa 180
ctcgcttttg atttttaa 197
```

<210> 3791

<211> 161

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (117)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (140)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (144)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (150)

<223> n equals a,t,g, or c

<400> 3791

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ggagatttttg gatggcaacg atgagaagta caaggctgtg ctattacttt ttgagctttg 60
caagttgtgt acataataat tctaaagaag ttactttgtt tgcaatgcat caaattnaaa 120
```

## 3420

tgatgngatt ttttttgtn tatntgatch tagtgacagt g

161

<210> 3792

<211> 51

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (31)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (40)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (50)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (51)

<223> n equals a,t,g, or c

<400> 3792

gctgtgttnc agaccgtgtc tgacttagtg naacctaggn gattttatan n

51

<210> 3793

<211> 110

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (89)

<223> n equals a,t,g, or c

<220>

## 3421

<221> misc feature  
<222> (91)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (105)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<400> 3793  
gggnctttgt gataccacaa atcccaagcc ttcccttgcc tgaccaatac ccatcaaggt 60  
ctgtgatttg acttggtgca tattggtang nccaggggnag gcttnngatg 110

<210> 3794  
<211> 88  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)

3422

<223> n equals a,t,g, or c

<400> 3794

ggggntttgt tgctgtcctg gctgtcctaa ccaggggggtg ggcattcgga actnngggcc 60  
ntantgggaa ggggaacgaa gaaaaacc 88

<210> 3795

<211> 82

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (45)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (63)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

<223> n equals a,t,g, or c

<400> 3795

gcaacttcat tctcaaagag tagcaagttg tcatgagggg ccntnaatga caacttcata 60  
ctnaaanaga ancaagcgtg ga 82

<210> 3796

<211> 179

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

3423

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<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
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<222> (133)  
<223> n equals a,t,g, or c

<220>  
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<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (153)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<400> 3796  
gntggatatgt gctatnaaan atatcaatan tgcgtcatgc caagatcaca cagcatggag 60  
acacatgttc acgcagataa cacagncacc gcgtccctac cctggcgcat atgccatggt 120  
cgatcttggc aanaggggaa cattctgngc gantttccct ttggccgtca attggtctn 179

<210> 3797  
<211> 95  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature



3424

<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
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<222> (38)  
<223> n equals a,t,g, or c

<220>  
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<222> (43)  
<223> n equals a,t,g, or c

<220>  
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<222> (67)  
<223> n equals a,t,g, or c

<400> 3797  
tttttttttng ggggggggggt ttaaaaaaaaa aanaaggntt aanccccccc ggggggaaaac 60  
ccttttnaaa aaaaccagtt ggaaaggttt atttt 95

<210> 3798  
<211> 240  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<220>  
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<222> (19)  
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<220>  
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<222> (20)  
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3425

<220>  
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<222> (171)  
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<220>  
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<222> (193)  
<223> n equals a,t,g, or c

<220>  
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<222> (202)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (240)  
<223> n equals a,t,g, or c

<400> 3798  
gncctctgga cccactcnnn ccttcctgcc ctgtttgctg agggacatca cccacatgcc 60  
ccagctctcg gacctgcan ctctgtgtcc caggccacag caaaggctctg ttgaaccct 120  
ccctccattc ccagttatct gggtcctctg gattcttctg nttcttgaat naggctctgc 180  
tttacccta gcnactacag gnaagcctct gacagtggcc gctttacttg cattctgcan 240

<210> 3799  
<211> 89  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<222> (4)  
<223> n equals a,t,g, or c

3426

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<400> 3799  
ntcntttntn cgtccggtac atactgggct ctgggagtag attgaacaag ccattaaaat 60  
taaacagcc ttaaaaaaaaaa aaaaaaaaaa 89

<210> 3800  
<211> 250  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (92)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>

3427

<221> misc feature  
<222> (112)  
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<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (177)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (215)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (237)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (248)  
<223> n equals a,t,g, or c

<400> 3800  
gagctgagga acgaaagaaa cttcgacaag anaatggaaa tgtacatgct atagcntaac 60  
tgaanataaa attacaggat atcacattgg antcactgcc aagtcatan cntaaatgat 120  
gagtcgggtcc tntttccant ggatcataag acaatggacc ctttttggtta tgatggnttt 180  
aaactttcaa ttgtcacttt ttatgctatt tctgnatata aaggtgcacg aacgtcnnaa 240  
gtattttntc 250

<210> 3801  
<211> 54  
<212> DNA  
<213> Homo sapiens

3428

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<400> 3801  
ggagccacaa tntgcactgg ggtntcaaag angactacnt ntggaaattt ttta 54

<210> 3802  
<211> 300  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)

3429

<223> n equals a,t,g, or c

<400> 3802

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ggacgcgtgg gcggaggcac nggagagnnc angacgaccc cagcagctgc caggaaaggc 60
cacagtcctg gctgggggct gtggggctgg gccaaaggcca ctgaaatctg gtagacaagg 120
aaaggagagc tgggggacggg ggagcccaga acacaaggct gacagcaca agagaaagcc 180
ctctgtcccc aacaaaccta gaaatcaaca tccccaagct cgcattggccc aaacacacta 240
agaaatacga ctcagaaaat caacagggcc agtggaccca tggatccatc tcaggagagac 300
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<210> 3803

<211> 116

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (25)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (110)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (112)

<223> n equals a,t,g, or c

<400> 3803

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gccgacgcgn gggaaaaaaaaa gggnggaaat aaaaaacacc agaggagaaa aaagangaaa 60
nagaaaaaat aaaagcatat ccctatatgg aaggcgaacc tgaggatgan gnctat 116
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<210> 3804

<211> 125

<212> DNA

## 3430

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

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<220>

<221> misc feature

<222> (23)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (75)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (124)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<400> 3804

ccnaatcaaa agattggact tcnagcacia tgagacacgg ccaacgggtt catggaaaag 60  
ggctanggag ccnnaggtg cgcattgatgc tgagactgaa agggcctttt ggtactgaaa 120  
ggcnn 125

<210> 3805

<211> 152

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

3431

<220>  
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<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

<220>  
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<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

<400> 3805  
aggctgtaac tactttataa cnaacatgnc ctgcnaaaat ctgacagctg caaggtactc 60  
tggagagtca ccacnttaag ggcatttacn ccgaaacaga nnatggaggc atagnactgg 120  
ggagggaagt tttgaaatgg gctcaacaga aa 152

<210> 3806  
<211> 414  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (248)  
<223> n equals a,t,g, or c



3432

<220>  
<221> misc feature  
<222> (297)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (356)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (359)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (379)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (387)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (400)  
<223> n equals a,t,g, or c

<400> 3806  
gaaggcctgt atggcccttc ctccctctcc aaaccacta tgagacacca cacttcagcc 60  
accaccagct tctccactcc tataacccat gtgccctttc aagcctcggg gcctttgcag 120  
ttgctatagt ctctatctgg aatgcccttc cccagttct tcccatggct gactcctttg 180  
aatctttctg gtgttggtta aactgtcacc tcttcttgga acccttctct gaccatcctt 240  
ccatgtanat tagctcagtt attctcacct tgttgtgtctt tttccttgca gtttagnact 300  
cattaccatc tggacatatt ttacgccttg ctctcccact gtgaggacag ggacntgnc 360  
tttcttgctc gagactgtnt ttcccancat ctattgcagn gcctgggtatg cagt 414

<210> 3807  
<211> 407  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
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<220>  
<221> misc feature

## 3433

<222> (145)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (155)  
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<220>  
 <221> misc feature  
 <222> (320)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (332)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (367) ,  
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<220>  
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 <222> (385)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (393)  
 <223> n equals a,t,g, or c

<400> 3807  
 ggggttanttg taaaaaccac gttaatgttt ctgagctttt ataaaacata tcaaccaatg 60  
 tgtagacctg caaaagttga aataggtgta taatagactt tttattagtt tggatttgta 120  
 atagatcact catttgatg tattntgcat tctantcata tgattataag taattttgtt 180  
 tataagttta taagtaattt tgtacaagta aatttaaact ttaacaccat gttaaaattt 240  
 cagaagccag aaaagaggga gatgcagtct tatatttaac aacttaaaac agtttaaattc 300  
 ccatgtagtt atagactgan ataaaacaaa gnatttctct tggcagtaga atccctgtgt 360  
 tctgtgngtg tggaacatat gttcnagagg gcngggacta tgtcttg 407

<210> 3808  
 <211> 73  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (24)  
 <223> n equals a,t,g, or c

3434

<220>  
<221> misc feature  
<222> (31)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (48)  
<223> n equals a,t,g, or c

<220>  
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<222> (72)  
<223> n equals a,t,g, or c

<400> 3808  
gctagaatat tactgtggat ccntaaaga nngactaatt ggctctgnat taatggagac 60  
ttcccactgg cng 73

<210> 3809  
<211> 406  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>

3435

<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (198)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (322)  
<223> n equals a,t,g, or c

<220>  
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<222> (339)  
<223> n equals a,t,g, or c

<220>  
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<222> (387)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (403)  
<223> n equals a,t,g, or c

<220>  
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<222> (405)  
<223> n equals a,t,g, or c

<400> 3809  
ttnntagaga gtccttttgg aagactncta tagggaannc tggtagcct gcaggtaccg 60  
gtccggaatt cccgggtcga cccacgcgtc cggttcttta taaagtaaaa gtatacgaaa 120  
ctgacaataa tattgtgggt tataaaaggag aatagctatt ggggttagca ttgcacaaaag 180  
cccagtttct ttctgtgntt gaaaaagatt ttgatcccct tggaatatta agaggtcaac 240  
acgtgattgt tgtacgtaca cattgtgctc tggagtgcct atttattgaa atcattgtaa 300  
gacctgttat aaattttaag tntattttaa actaaactng taatatacat cctgaaaatc 360  
attttataga gtctttttatt tagtaangta .aaaaaatcaa ttnant 406

<210> 3810  
<211> 220  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (192)

3436

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (206)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (212)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (213)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (214)

<223> n equals a,t,g, or c

<400> 3810

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ggttggaata tggcataagc cggactatct gggaaatgtgg gggagggggag gctgtgctgg 60
ctcctcttgc agctgtcatc caccagggcac ccccttctgt ccccgaaacag ctgctaaggg 120
ttagggggaac tgattggaga aggagcagga atgttgatg tgtggagggg gtgggggtggg 180
gggtgacaga tnaactgggt ggaaanctgc cnnncttgca 220
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<210> 3811

<211> 127

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

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<220>

<221> misc feature

<222> (23)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (27)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (30)

3437

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

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<220>

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<222> (75)

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<220>

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<222> (116)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (127)

<223> n equals a,t,g, or c

<400> 3811

nttgtagaga cccatttgg aanaccnctn actatagggg aagctgggtac gcctgcaggt 60  
accggaccgg aatnnccggg tcgaccacg cggtcgaaca agggcaagga gacctncctt 120  
tgagctn 127

<210> 3812

<211> 299

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (18)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (146)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (184)

<223> n equals a,t,g, or c

3438

<220>  
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<222> (250)  
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<220>  
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<222> (253)  
<223> n equals a,t,g, or c

<220>  
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<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (267)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (277)  
<223> n equals a,t,g, or c

<400> 3812  
aaacccctna ctataggnta agctggtacg cctgcaggta ccggtccgga attcccgggt 60  
cgaccccaaa aaacttgatt agggatgatgg ttcacgtagt gggccatcgc cctgatagac 120  
ggtttttcgc cctttgacgt tggagnccac gttcttaata gtggactctt gttccaaact 180  
ggancaacac tcaaccctat ctcggtctat tcttttgatt tataagggat ttgcccatt 240  
ttggcctatn ggntaaaaaa tgancnatt taacaanaat ttaaaccgca attttaaca 299

<210> 3813  
<211> 285  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)

3439

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (136)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (241)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (276)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (281)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (283)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (284)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3813

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ganacccctn ctatagggna agctggtacg cctgcaggta ccggtccgga attccccgggt 60
cgaccacgc gtccgatttc atattaaatg ttatataaca caagagagag aaagtataag 120
tagaaagagt gcctancacc ctaagaaatt taaattaaaa tgctaattat ccattggtga 180
gtgcagtctc gaggataggt gagtaaaactg ctctgtgttg aagtcacact gctgacctgg 240
ntattgtaat aaatcacctc tttggttaat ttaaanaatt ntnnt 285

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&lt;210&gt; 3814

&lt;211&gt; 107

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (19)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature



3440

<222> (51)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (91)  
<223> n equals a,t,g, or c

<400> 3814  
tacagaggat cagtgggtgna ggacgcacac ctggactggg cagcagcgag ngagaaggat 60  
cgangatngg agcagtgtga aaaggatgaa ngaaagattt ggggata 107

<210> 3815  
<211> 123  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (4)  
<223> n equals a,t,g, or c

<220>  
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<222> (11)  
<223> n equals a,t,g, or c

<220>  
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<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
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<222> (105)  
<223> n equals a,t,g, or c

## 3441

<220>  
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<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<400> 3815  
tatntgaccc ntttggaatg ccggtacgcc tgctgtaccg gtccggaatt cccgggtcga 60  
cccacgcgtc cgctgangca tattgtgcac aaaattgggc ncatnacgnt gactgtnacc 120  
atg 123

<210> 3816  
<211> 506  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
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<222> (124)  
<223> n equals a,t,g, or c

3442

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (161)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (219)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
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<222> (285)  
<223> n equals a,t,g, or c

<220>  
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<222> (292)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (309)  
<223> n equals a,t,g, or c

<220>  
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<222> (311)  
<223> n equals a,t,g, or c

<220>  
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<222> (316)  
<223> n equals a,t,g, or c

<220>  
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<222> (327)  
<223> n equals a,t,g, or c

<220>

## 3443

<221> misc feature  
 <222> (361)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (410)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (415)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (438)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (461)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (477)  
 <223> n equals a,t,g, or c

<400> 3816  
 gnctgaatga tggagnntta agtctgagtt ttactgngag ttaaaaccct ctgaatttcc 60  
 agatgataat tccatttttta atccatttgg aatgctgaaa gctacaaaaa tgnatttcct 120  
 gtcngtaaac atttggtgct ttattttngt gtttaattaa nagtttattt ttccccttta 180  
 aatctttgaa ggaaagaagg attttttgct tttttgttng ttttngtcag aatagttcat 240  
 ggtaaaacttt gcaattacag atgatagttg aaaaaaaacc ccagngacgc antcgtagcc 300  
 gcaggcgtng nttcangggg caggcanaag atagacagcc aggtaacttg agtggacctg 360  
 nggacaccat cagggtcaca agcatgaaaa aaatgctatg ctgctttctn aatanattat 420  
 acttacatgt acacatgngc catatcattc aaaaattgca ntgcataaaa tggttantca 480  
 cctaataaga ctctctatta ataaaa 506

<210> 3817  
 <211> 152  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (16)  
 <223> n equals a,t,g, or c

<220>

3444

<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (80)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c

<400> 3817  
gtgggaaacg ctattntctn agggacgntt tcccgtttat atgacaagag cacaggggcn 60  
tggccggaaa aaccaattan taggaccacc ttcttccct tggattggac ttccgacang 120  
gtccttcaa ttnggataan ggccaagggtt cn 152

<210> 3818  
<211> 252  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature

3445

<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (116)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (141)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (219)

3446

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (230)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (234)

<223> n equals a,t,g, or c

<400> 3818

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ccgngcgcac ccacgcgcgn ggacctatan aggaattgtg agtaagagaa taaaaggtgt 60
ntcaggggaa ctctaacttt cgggacccac atgcacngca gnncatacct cccatngtgg 120
ccagatatgt cgcggattgt nccncagaca tggcaccaaa ggatagcctt gaaggaggag 180
ctcattggat gccagattca caaggtaatg attcattgng agtggtgcan cganaagtca 240
gagcaccagt tc                                     252
```

<210> 3819

<211> 135

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (28)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (131)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3447

&lt;222&gt; (133)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (135)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3819

ctntggaacg cctactatag ggaaagcngg aacgcctgca ggtaccgggc cggaattccc 60  
gggtcgaccc acgcgtccgc ccacgcgtcc gaattcacat aatgccaaat acacaatgtg 120  
aattnggcga nnnan 135

&lt;210&gt; 3820

&lt;211&gt; 414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (244)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (314)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (345)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (356)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (367)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (380)



3448

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (384)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3820

```

gatttctctg gatanatctt tatatgctag tcattggtga ttttgatgag tcaatttaca 60
gactgtaatc ttctaaaaat tctgaaagac taattgtttt ctgtgccata taaatgcata 120
ccactgagca aatgaacctt attctcagca ggaacaacta gcatacatgt tctgaattct 180
aacagtgcta aattacattc aagtcacagga agatcacctg gaattaatgg catttcagtt 240
ggcnggcatac attcccaccc ctcggtctta ggaaaaggag gtagaagccc ccagaaccac 300
acggcagaga tcancaagtt ttgtctcaag tcagacaagg tctangtggc cttggnctta 360
tgcaantgg gtgacatatn ggantatatt tccctttacc tccatagagt tcag      414

```

&lt;210&gt; 3821

&lt;211&gt; 147

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (79)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (132)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (135)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (143)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (147)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3821

```

gtataagcct ttattccaag aggtatttat gctaatatgt gccataaaaa agtagagttt 60
taatatttga caaaatgtnt gtgcaaagaa acaaatgcat aaacacatta ctgctacatt 120
aaggcatttt gnaanctgga canctan      147

```

3449

&lt;210&gt; 3822

&lt;211&gt; 76

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (38)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (42)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (45)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (46)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (62)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3822

gggattgaga gacacacaca gctgggtcaag tagacgtnta cngggnacca tttgaatatt 60  
tnatccatga atcatg 76

&lt;210&gt; 3823

&lt;211&gt; 437

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (370)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

## 3450

<222> (382)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (404)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (420)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (423)  
<223> n equals a,t,g, or c

<400> 3823  
gacctcatct gcctggggcc tnacctgctg gagtcctttg tggccaaccc tctctcttac 60  
ctgggacctc acacgctggg cttcacggct gccaggagcc tctccctcc agaagacttg 120  
cctgctaggg acctcgctg ctggggacct cgctgttg ggacctcacc tgctggggac 180  
ctcacctgct ggggaccttg gctgctggag gctgcaccta ctgaggatgt cggcggtcgg 240  
ggactttacc tgctgggacc tgctcccaga gaccttgcca cactgaatct cacctgctgg 300  
ggacctcacc ctggagggcc tgggcctggg gaactggctt actttggggc cccaacccgg 360  
gagtgatggn tctggcttga antggtttgt gaagtggta gccnctgtta aaggggtgcan 420  
aanagatcat tacggta 437

<210> 3824  
<211> 345  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
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<222> (42)

## 3451

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (48)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (112)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (325)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (333)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (343)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (344)

<223> n equals a,t,g, or c

<400> 3824

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cncgggatta angggggaat ctaatggaag ccttctggna cncctgcngg taccgggtccg 60
gaattccccgg gtcgacccac gcgtccgcaa cagaaagatg gggctgtccc anccgtaagt 120
caggctcgag ggagactgat cccctgacca attcacctga taaactctag ggacactggc 180
agctgtggaa atgaatgagg cacagccgta gagctgtggc taagggcaag ccccttcctg 240
ccccaccca ttccttatat tcagcaagca acaaggcaat agaaaagcca gggttgtctt 300
tatattcttt atccccaaat aatanggggt ggngngaggg gcnnng 345
```

<210> 3825

<211> 439

<212> DNA

<213> Homo sapiens

<220>

3452

<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (409)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (411)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (416)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (419)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (439)  
<223> n equals a,t,g, or c

<400> 3825  
ttaacggggn aaatttcnta ggccattctg gtacncttgc nggtaccggt ccggaattcc 60

## 3453

cgggctcgacc cacgcgtccg cggacgcgtg ggcgnacgcg tgggctgagg ccagcatgag 120  
ctctccacag gggacttggt tggggcagac atctgtagt gctcttgagc cactgggggc 180  
cctgggattg gggcatgggc agtagctgat tcccttcac cccatcctct ctggcattgg 240  
caggtcagtg cacaatgaac tggagaagcg caggtgagtc ccagtcctgc cctgacagcg 300  
ccagcccca ggggccactg ccctctggcc tccctcccc tgccattcct gtggccggca 360  
aggtggggct ggcactgcct ccagacctct tcccacagga aggcccaant naaacngng 420  
ctggaagcgg ttgaagcan 439

<210> 3826

<211> 127

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (108)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (111)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (116)

3454

<223> n equals a,t,g, or c

<400> 3826

```
cgggacttna anggggggtan actaatggga aagctcatta taggggaatnc tggnacgcct 60
gcaggtaccg gtccggaatt cccgggtcga cccacgcgtc cgactagnag nagatngcga 120
gcggtcg                                     127
```

<210> 3827

<211> 362

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (15)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (218)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (282)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (332)

<223> n equals a,t,g, or c

3455

<220>  
<221> misc feature  
<222> (337)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (353)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (361)  
<223> n equals a,t,g, or c

<400> 3827  
tntaacgggg ggaangctat tgggaaggcc attctggnac ncttgccggt accggnccgg 60  
aattccccggg tcgaccacg cgtccgagaa aaaggaagag gggtgggcac cgtcgtgaaa 120  
tggtacactt cctcaccgcg gtgcttatct acataattgt gtttttataa catttccttt 180  
acttttctgt aagctgatgc tgccctaatt atagattntt aagagaacac ttcattgtac 240  
cccaaattat acagtgtctt aaaaaggtag tttcttaccg gnttaccaaa taccttataa 300  
attcgaatta cataaaaacaa ttcgagatac anaatanaaa cagcctgtac tgntaacagg 360  
ng 362

<210> 3828  
<211> 239  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (126)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (127)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<220>



3456

<221> misc feature  
<222> (157)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (200)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (206)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (228)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (229)  
<223> n equals a,t,g, or c

<400> 3828  
gaaaaaatttt atttgcatTTt atgccttttag gataaattttg tatcttttcta atctgttttta 60  
tcatttgctac aggttttttaa aaaagaacct ttcactagct agcacatgcc agaggttcac 120  
atctgnnttg nttntcaaac aggtcgtagc tgtattnatt ggccatgcaa gtagaggaaa 180  
tgcacagtac aaatgttttn ctttancacg taagggacct atccttgnnt tgaaaagtg 239

<210> 3829  
<211> 56  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>

3457

<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<400> 3829  
gcttgnataa agnattggnt tgganttggg aaattaaaaa aaggtttcan tttaac 56

<210> 3830  
<211> 564  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
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<222> (39)  
<223> n equals a,t,g, or c

<220>  
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<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
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<222> (70)  
<223> n equals a,t,g, or c

<220>  
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<222> (237)  
<223> n equals a,t,g, or c

<220>  
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<222> (351)  
<223> n equals a,t,g, or c

3458

<220>  
<221> misc feature  
<222> (517)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (547)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (555)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (558)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (560)  
<223> n equals a,t,g, or c

<400> 3830  
catttttgag gcagtgggtc aaacaggnaa agccaatgna tgngtgncat tttaaagtgt 60  
cggaattaan cctctgaata ccttctccat tgggggaaag atattcttgg aaccactcat 120  
gacatatctt agaagggtcat tgacaatgta taaactaatt gttggtttga tatttatgta 180  
aatatcagtt taccatgctt taattttgca cattcgtact atagggagcc tattggntct 240  
ctattagtct tgtgggtttt ctgtttgaaa aggagtcatg gcactctgtt acatttacct 300  
tatcaaacct agaattgtgta tatttataaa tgtatgtctt cattgctagg nactaatttg 360  
cagatgtctt tacatatctt aatacagaaa ctataacatt caatagtgtg ctgtcaaagt 420  
gtgtcttaact cacctggata tacctacatt ggtaaagtgt aaacagtaat cattaaaaca 480  
tttttgatta aaaaaaaaaa aaaaaagggc gggccgnttt aaaaggatcc aagctttacg 540  
taccctntgc atgcnacngn cata 564

<210> 3831  
<211> 637  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (461)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (558)

3459

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (569)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (597)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (614)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (628)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3831

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ggggaccaaa gaggccatag tgcccatgga ggtttggact taagagatat tcattggcag 60
ctcaaagact tccaccctgg agaccacact gcacacagtg acttcctggg gatgtcatag 120
ccaaagccag gcctgacgca ttctcgtatc caaccaagg accttttggg atgactgggg 180
agggtgcag tcacattgat gtaaggactg taaacatcag caagacttta taattccttc 240
tgcctaactt gtaaaaaggg ggctgcattc ttgttggtag catgtactct gttgagtaaa 300
acacatattc aaattccgta taccaaaatc catttccttt gtaacaagaa tttaccagta 360
actgtgatct aggttgccaa aagttgtctg aatctcctta ttcttctctg atcttcattt 420
atgcagccaa tgtctagctg gacctgccct catcttgcatg ntcatacagg cactgtttga 480
gagattgggtt attattagat gttgtaatgc tgcttcaaga ttcttcatgg ttacatggga 540
tgccctgct catctggncc tgaaagtant aacattcacc ccaatgaggg atatagncat 600
taattccttt ttcnagttac ttgtaccnaa acaccgg 637

```

&lt;210&gt; 3832

&lt;211&gt; 488

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (99)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (234)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

3460

<221> misc feature  
<222> (263)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (269)  
<223> n equals a,t,g, or c

<220>  
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<222> (317)  
<223> n equals a,t,g, or c

<220>  
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<222> (359)  
<223> n equals a,t,g, or c

<220>  
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<222> (375)  
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<220>  
<221> misc feature  
<222> (415)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (432)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (435)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (470)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3461

<222> (481)

<223> n equals a,t,g, or c

<400> 3832

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ggccccctgcc cgtaccgggtc cggaattccc gggctcgaccc acgcgtccgg aataatttat 60
aatgggttatt tattggaggt ggtaattagg gaagatgtnc ttttaaacag tagaattgtg 120
ttacaaaggg gtgaaagaga gggaatagtt gtccttgtt gaagggcatg tgaaggtagg 180
tttcagggtt ggttttacaa acctgttaac tacctcctgt ccagcttgac aganactaat 240
ttttcatctt ttgctgtca atnngttcnc agaaaagaga cttttccctc tcttgatagg 300
atctgtctta gggacanagg gaccatcgtc ttttaagtga ttaattattg atggttcana 360
atgggttttca tcatnttggg atcagctata tggcaaatag gtatcatcaa tgagntaacc 420
atctaaaaat anaanaagtg gaagccctaa aatgctagga ataataatan aaaggccaaa 480
nataaccc                                         488
```

<210> 3833

<211> 436

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (98)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (142)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3462

<222> (195)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (297)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (302)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (305)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (311)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (332)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (356)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (361)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (401)

## 3463

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (403)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (432)

<223> n equals a,t,g, or c

<400> 3833

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nnaattcaca ctgaaacgnc ctactatagg gattagnnggg aacgcccgcg ggtaccgggc 60
cggaattccc gggtcgaccc acgcgtccga ttacattntc tccccgtata atctcttcta 120
aattaccttc tgtagttggg tntcttccct tccttaatgt tagccattct tcagggtgaag 180
gttaatcctc aatgnactct tcatgtttta ggggaggggc taaaaccttg ggggtaggac 240
ttaccaacgg agtttcattg catgatgac ttattgagct tattggtagc ccttatntca 300
gnatntaaag ntnntcttgg gctggtcaga tnttcaagag aagacttttc atttcntttg 360
nggagggaaa aggcctttta ccagcactct tcaagctcag nanggggaaag acttcaagca 420
ctcaggaagc angcat 436
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<210> 3834

<211> 115

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (30)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (81)

<223> n equals a,t,g, or c



## 3464

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<400> 3834

gcctagtnat agggcagtgga ggaatcaggn ctactatgga aanagtcaca taacgggtctc 60  
ttcaaactct tacatgccnt nacctaagat gatcaccact cactgcgant gtctc 115

<210> 3835

<211> 69

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<400> 3835

tttaaggggt gggaacccccg gcccccgga caggngacac gcggggccgc ggaaatattc 60  
tccggggggg 69

<210> 3836

<211> 66

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (58)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3465

<222> (62)

<223> n equals a,t,g, or c .

<400> 3836

gcctttaaaa acagaacctt ttatacaggt ggattttcat tcctctgggg acagnggnng 60  
nnaaga 66

<210> 3837

<211> 52

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (47)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (51)

<223> n equals a,t,g, or c

<400> 3837

gagcncaatg aagatcaaga tcattgctgg gtgcgtgntg cattggngnc nt 52

<210> 3838

<211> 314

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (305)

<223> n equals a,t,g, or c

<220>

## 3466

<221> misc feature  
<222> (307)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (309)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (310)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<400> 3838  
ggtttttttct tattgctgtg gaacctcttt tggaggacgt taaaggcgtg ttttacttgt 60  
ttttttaaga gtgtgtgatg tgtgttttgt agatttcttg acagtgtgtg aatacagacg 120  
gcaatgcaat agcctattta aagacactac gtgatctgat tgagatgtac atagtttttt 180  
tttttaccat aactgaatta ttttatctct tatgttaaca tgagaaatgt atgccaaatg 240  
attagtgtgat gtatgttttt taatttaata tttaaataaa atatttggaa ggaaaaaaaa 300  
aaananann aan 314

<210> 3839  
<211> 181  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

3467

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<220>  
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<222> (125)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (180)  
<223> n equals a,t,g, or c

<400> 3839  
tcaactncta ctagggggggg gaaaaaaggc tntgggttta ccggcncntnt ggccaagggg 60  
ttacccggggg tttccccggg gaaaattttt cccccggggg gnttccggaa cncccaacgg 120  
gccgnttccc cggggttggt tggaaacntt aaagggttta tttttggctt tggccattan 180  
a 181

<210> 3840  
<211> 458  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (373)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (394)  
<223> n equals a,t,g, or c

3468

<220>  
<221> misc feature  
<222> (420)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (423)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (450)  
<223> n equals a,t,g, or c

<400> 3840  
gcggactaag acaacaagga tgaagtgaag catcctggat atcctctgcc tgtaatccgg 60  
tctgatgtgc ggcacttcat gtccgagctt atccatttgg ttttgggtctt tggaaaagac 120  
aacgttagtc acttactagt ggcagttgca tggagaagag ggctcactaa tgggggacag 180  
ggtgatcatt tggagtttgc aagctgtgaa gacagatgtt ggctcttcac aattttggaa 240  
gggttcacta gttaagtgtg ggaccttatg ggggatggaa ataaggcaga ggcatagttc 300  
tggccactga gttccttaag gtctgctgaa ggctgccgat gcgtctctca ctccctcgta 360  
tgctctggag canaccaggg gctggaggaa tganggaaga tccttttcatt aaccaccatn 420  
tgntgacatt tttctttgtg aaaacatttn tattatat 458

<210> 3841  
<211> 498  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (459)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (465)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (480)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (493)  
<223> n equals a,t,g, or c

3469

<220>  
 <221> misc feature  
 <222> (498)  
 <223> n equals a,t,g, or c

<400> 3841  
 gcagtgggtgc agttctcggc ctctcggcct ggcttctctga ccttctggga ccagtgcaca 60  
 gagagactca gctgcttctt ctgcccgggtg gagcgggtgc ttctcacctt ctgcaaccag 120  
 tatggtgccc gcctctccct gcgccagcca ggcttggtctg aggctgggtga gtgggctgct 180  
 tcctccttcc acccttgctc agattcccag tgacaggaag ctcggggaag ccaggtcagc 240  
 ccacacagat aaacgaactg ggcaccgagg agaccagcaa agacttgggc cttagagcag 300  
 aaggacccag atgggtggggg tttgaacagg gggcccctgg acctgagcct gggataggag 360  
 catctctccc ctctaaaagc tgtgttcacc caaactctga ggcccatgct actgcctcct 420  
 gcagtgtgtg tgaagttcct ggaggatgcc ctggggcana actgnccaga agggcccaan 480  
 caagggcctg ganagcan 498

<210> 3842  
 <211> 98  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (46)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (63)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (78)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (92)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (96)  
 <223> n equals a,t,g, or c

<400> 3842  
 gaacactgca atgctataca tctatgctgt gttgcttggt aaatcnaggc actgcagtat 60  
 tangcatgca catgattntt tctgagaatg angaant 98

<210> 3843

## 3470

<211> 63  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<400> 3843  
gcggacgcgt ggggtggcact gaggagctat ggggccacaa ncagtantna ctggctnntt 60  
tcc 63

<210> 3844  
<211> 65  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (36)

## 3471

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<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<400> 3844

gacggacnca taggacctnt aatctttcat cacagntcga naggcccacc tgtaccgtgn 60  
tattt 65

<210> 3845

<211> 76

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (15)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<400> 3845

gaaaaaaaaac antnnacaat gaaaatattg agaagatatt gagaaagaaa tatatttggg 60  
gcggacatcn atgnga 76

<210> 3846



3472

<211> 187  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (170)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3473

<222> (176)

<223> n equals a,t,g, or c

<400> 3846

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tacggacttt ncaaagggat tagaatttct tttccttttc ttaattcagg ggggacaatt 120
cnggcttttc caacantcc ttgcttgccc gcttgncagc agccaggcan gtttcngatg 180
aatcaag                                     187
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<210> 3847

<211> 68

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (15)

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<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

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<222> (27)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<400> 3847

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gctgggaaca agccngagct gnangangaa gagaagntgt acaagaacgc ccgggaaagg 60
gagaagta                                     68
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<210> 3848

<211> 235

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (11)

3474

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

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<220>

<221> misc feature

<222> (161)

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<222> (166)

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<220>

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<222> (187)

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<220>

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<222> (190)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (218)

<223> n equals a,t,g, or c

<400> 3848

gcgccccgccg nnagggccgc acgaggcccg gcgtgcgcc ccgcctctcc cgaagcgccg 60  
ggccccacgc cgccctctct ttccttttcc gctctctccg cctccggaag cgcgggcgcg 120  
cggcgccggg agcccgttca gggccgcggg agtgcgccag ngccgngcgt ggggctgagg 180  
tggccgnggn tctcagatat atttttgccca tcatggancca gtttggagat atatt 235

<210> 3849

<211> 71

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (13)

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<220>

<221> misc feature

<222> (61)

3475

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (62)

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<220>

<221> misc feature

<222> (63)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (68)

<223> n equals a,t,g, or c

<400> 3849

gctttgctgc tangtaggca tggattatta tgctgataca tagagctctt ttgatgataa 60  
nnngattnta a 71

<210> 3850

<211> 76

<212> DNA

<213> Homo sapiens

<220>

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<222> (43)

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<220>

<221> misc feature

<222> (47)

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<220>

<221> misc feature

<222> (48)

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<222> (67)

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<220>

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<222> (71)

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## 3476

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tgactgncca nacttc 76

<210> 3851  
<211> 63  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<400> 3851  
gcaatgtccg ccagaaggnc aggcnagccn agccntgccc tcaggcggag antggtctgt 60  
gac 63

<210> 3852  
<211> 349  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature  
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3477

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<220>

<221> misc feature

<222> (280)

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<220>

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<222> (303)

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<220>

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<222> (318)

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<220>

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<222> (348)

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<220>

<221> misc feature

<222> (349)

<223> n equals a,t,g, or c

<400> 3852

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ttgaagtaca gtgtagcata tcattctacc ttgaatccta tgataataca gttgacatct 120
tgctgtagtg gacttgtgca tatagcacac atgatatagt atattgtatt acagtaaact 180
ttagacantg ctacttaatc attttacttc atgaagataa actancattc taaatatgaa 240
taatattaat ggtctacaaa aaattttgag cacattttan aatcatattt ataataaact 300
ggncaaattg ggcttatnta atgtataatt tagaaccacac tgtgtagnn 349
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<210> 3853

<211> 129

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

3478

<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
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<220>  
<221> misc feature  
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<220>  
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<220>  
<221> misc feature  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
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tacttaatca ttatacttca tnaagataaa ctaggcctgt caaatatgaa tatnnttaat 120  
ggctacana 129

<210> 3854  
<211> 200  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature  
<222> (63)  
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<220>  
<221> misc feature

3479

<222> (92)  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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atntgaaaaa acatttcact tatcagagat tnttatattt atacaaaaga ttactaaatg 120  
aaggattgct aaatgntttt ggntcaatta cataaaaatt aatattctgg gtntgatctg 180  
ggagagaata aatatganan 200

<210> 3855  
<211> 456  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<222> (176)  
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<220>  
<221> misc feature



3480

<222> (213)  
<223> n equals a,t,g, or c

<220>  
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<222> (216)  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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## 3481

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<221> misc feature

<222> (338)

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<220>

<221> misc feature

<222> (343)

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<220>

<221> misc feature

<222> (383)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (407)

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<220>

<221> misc feature

<222> (424)

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<220>

<221> misc feature

<222> (427)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (438)

<223> n equals a,t,g, or c

<400> 3855

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tatatacact gcctctagga ctgggacana tagccactga gtacctgctt caaatcaccc 120
tgcacgtttt ctctttggaa agataagcac tggagaacca tcttcgttac cttcancaga 180
aatggaaaca attcaagaca ttaagaatgc cgnaantgga cagcagctat gcanggttca 240
gnatatgaag ttttcaagat ggtgtgcctc actaanccng aaatcangaa aagatcgaag 300
ctagcctntt tnatctcagc ntgctcctta aatcangnca acnccctcca aaattaattg 360
tgaatctgaa acctttgcca ttngcttttt caaacittaa attgganata accttaactt 420
attntgntga aaccacantt gccaccataa aattat 456

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<210> 3856

<211> 91

<212> DNA

<213> Homo sapiens

3482

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (31)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
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<222> (86)  
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<400> 3856  
ggtttttgac ctccacnaag atancaatta naaatngat tttctgaggt cccctttgtc 60  
tccaaaattc aattattaaa gttttngggg g 91

<210> 3857  
<211> 510  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<220>  
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<220>

3483

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<220>  
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<220>  
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<222> (466)  
<223> n equals a,t,g, or c

<220>  
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<222> (505)  
<223> n equals a,t,g, or c

<400> 3857  
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gatattaaaa acttttttta tgtagatgtt acagttaggg gattaccata tttgtttttg 120  
aagaatgtat aggctaagaa atgcctctca cgtatacata gccaaaagct tttcttggct 180  
tcagattaat gatttctgat gtaacatttt ttaatgtaaa cacaaaaaat gacttgatat 240  
tttcttgta ctccatttat ttcttaatga ttgcatttca tgtttctaatt tttctaagta 300  
aattataatt acaaaattagc cttgtattaa aatatagggc tcaaaatatt ttctgnggtt 360  
ctctttggtc ttcattgcaa gtttgncaat ttatattctc tcagtgatta tttggntatt 420  
tttagnggta gntggatttt atcaagtggg aaactatgaa tacctncatt tgctatttga 480  
gaaaatgaca ctcatTTaat ctaantaaaa 510

<210> 3858  
<211> 552  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (439)  
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<220>  
<221> misc feature  
<222> (510)  
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<220>  
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<223> n equals a,t,g, or c

<220>

3484

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<222> (525)  
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<220>  
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<223> n equals a,t,g, or c

<400> 3858  
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aaaactccct tctgccccac cctgccccct ccacttcctg ccctctgttc catcttcccc 120  
cttcccaaaag gccacagcct ttattccagg cccagggatg taggaggggg aaggaggaaa 180  
caggaagccc agagagggca aagggcctac ctcggggcgc gaaccatgcc ccagactatt 240  
atctcagggc tttctgggca ctgacttcag cgtggccacc tgcccatgcc ctgaggccag 300  
ttggcgaggg gtggtcctga gggtttttat accctttgtt tgctaattgt taattttgca 360  
tcataatttc tacattgtcc ctgagtgtca gaactataat ttattccatt tctctctgtg 420  
tctgtgccaa gaaacgcang ctctgggcct gcccttgccc aggaagcctt gcagctgtgt 480  
gcttgtggga acacttgacc tgacttacan gnaccaataa agagntttat tttaaaaaaa 540  
aaaaaaaaang gn 552

<210> 3859  
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<212> DNA  
<213> Homo sapiens

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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

3485

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (53)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3859

ggtcagcctg natatgccca tgacacagta ttggaaanta accagnaana atnggttaag 60

&lt;210&gt; 3860

&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (397)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (402)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (432)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (475)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (501)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (541)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (580)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (581)

3486

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (598)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (599)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3860

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acagcacttg ggcctttgcc agcagcaaga ggtgaagcga agccactctt acctctccct 120
tccccctcca cctgccccct gcgtaggcac ccagacttgg agagacccgt ctgctgttaa 180
tacttccatc ctcttccttc ccaaagagca gatcccaagg catttactcc ttgggtctgtc 240
tcgctttatc tgtcgccctc cccagcgctg agagcctccc ctggctgtca gcagcactgt 300
gtccaggtc ttgtctgaac accgcagccc ctcttcgct ccttccagag ctcagcatgt 360
cacggcaagg actgccgcat tggatgatgga gggccanctg angggaagtt gctggtgaag 420
tttccttttc tncatttcta gcatatggac acctggcctc tgcttgaaca cttangtgac 480
aggaacttcg caccttctga ngccctggat gattctaatt ggtagaaatt ctaattggta 540
naaatcttcc ttataatgaa tgaatctgct ttctataatn ntacctattg ggccttgnnt 600
gg                                                    602

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&lt;210&gt; 3861

&lt;211&gt; 458

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

3487

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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (15)  
<223> n equals a,t,g, or c

<220>  
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<222> (18)  
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<223> n equals a,t,g, or c

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<220>  
<221> misc feature



3488

<222> (312)  
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<220>  
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<222> (331)  
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<220>  
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<222> (436)  
<223> n equals a,t,g, or c

<220>  
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nagaaaactg agcctaaaagg ttggcaggac aggaccttgt ctagggttcct tcaccatttg 120  
cataaatttt tagttgatgg cattctttta tttgagggct gctttgaaaag tgggttccat 180  
gtcttagtca tctttggggt tcttggggcc ttacacagtg ctggcataaa gcagccctgg 240  
aaataatggt tgttcaaaaat gtaagtggag tatagatttt ccctttttggt agatagctaa 300  
gaaatccttc angggaacct ggaatgcctc nttggtatgc angtcttgca gagcttttga 360  
ttgtnatttg aaataaactg ccctcgtggg gcncgtgttct ttttgcaaat tggcttgaaa 420

3489

attgttggttn cnccttnnaat ttagctccat tttcccaa

458

&lt;210&gt; 3862

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (24)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (43)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (72)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (77)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (90)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (109)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (112)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (174)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (251)

&lt;223&gt; n equals a,t,g, or c

## 3490

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<222> (264)  
<223> n equals a,t,g, or c

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<222> (279)  
<223> n equals a,t,g, or c

## 3491

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<221> misc feature  
<222> (366)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (369)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (377)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (383)  
<223> n equals a,t,g, or c

<400> 3862  
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cctcctgaga angaaangat ctgccctgan cactcccctg gcactgttnc tngcctctgc 120  
gcctcaaggg tccccttctg caccgctggc ttccactcca ataaagtgga ccanggtctg 180  
caagttcaac ggtcatagct ttccccccat gtcccaactt gcctcatcac tcccggccct 240  
aatctctcca nnnnnnnncc ccnngcctct tggggtcana cccaactat tcaagggatc 300  
tcctgtcttt aatcgataat tgggggtccc tgctctcccc aagaanatct cttcaagaaa 360  
ataaanttna ccttttnctt ccnaaaaaaa aaaaaaaggg gggggccccc c 411

<210> 3863  
<211> 566  
<212> DNA  
<213> Homo sapiens

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<220>  
<221> misc feature  
<222> (370)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3492

&lt;222&gt; (379)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (420)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (428)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (440)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (469)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (477)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (520)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3863

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tgaaaaccat gtgtatTTgt tccctccgta tgTTaaagat ttcctTTtag tggTaccattc 60
tgcaTcatt ttgtatagTc taccaaggcg ggtatcccta ggaacaatat tatataggaa 120
gcaggTatac tctgatcaca ttcaggataa gtgtacagaa gaaaatacgg tgtTTactct 180
ttagggaaCT ggaaacactc cctgcattga tgTTacattt taagaatggc actTTtgata 240
catgttatca taaaggTgct taatagactt gaattaaagt tTTTccaaat ctgtaaacaa 300
agcaaaaaat taaattgtaa tcatttgatt attTTTtaaT ttggTgctTT atattTngtt 360
tctcctccan aattaaaaanc tgcaatttat tgTccccca gctTTTgaag tTTTtTcctn 420
tactcaanta atgccaatan ctcccatTgg tTtgaaattc cccctTTtng ggaaatnaat 480
tttaaaaatt ccctaaccgg gccactTgaa aaacctgccn ccgcctaagg tTTTtTggct 540
ttgggtTggg aaaaaaacat taatcc 566

```

&lt;210&gt; 3864

&lt;211&gt; 259

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

3493

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<220>  
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<220>  
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<222> (44)  
<223> n equals a,t,g, or c

<220>  
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<222> (65)  
<223> n equals a,t,g, or c

<220>  
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<220>  
<221> misc feature

3494

<222> (87)  
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<220>  
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<222> (132)  
<223> n equals a,t,g, or c

<220>  
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<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (154)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (189)  
<223> n equals a,t,g, or c

<220>  
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<222> (203)  
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<220>  
<221> misc feature  
<222> (213)

3495

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<220>

<221> misc feature

<222> (233)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (255)

<223> n equals a,t,g, or c

<400> 3864

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gccaccgatt cccgengagg cnnaggett ggtgcgttca ntantcatct tcacccgtga 60
cccancncn tggntgagna atgcctngct gctgnangtg tattggacct nnatattgca 120
ttactagagg tncgaagac tgccctcntc cacnatggcc tatcacgtgg aattccccaa 180
gctgccaaang acttatacaa atncgtgtat cantctcaat actgtggggt ctngcaaacac 240
ggaaccaaac tgccnccca 259
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<210> 3865

<211> 232

<212> DNA

<213> Homo sapiens

<220>

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<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature



3496

<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
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<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
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<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
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<220>  
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<223> n equals a,t,g, or c

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<220>  
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3497

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (186)

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<220>

<221> misc feature

<222> (218)

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<220>

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<222> (220)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (227)

<223> n equals a,t,g, or c

<400> 3865

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agtatcatag ttgtacattg gtcacaaatc ctgtcagtg ctgggttaat ataatacagc 120
tnnggaccnt gcgtctgcnt ccgatgtagt ctatggaaat gtgttgtttc aattgaactg 180
taacangaaa atctggcctc acccatttta tagttganan acggaanagg at 232
```

<210> 3866

<211> 126

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (23)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

3498

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (80)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (108)

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<220>

<221> misc feature

<222> (124)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<400> 3866

```
anaaaaaaggn catctgccta aanataaaact gctagctctc cgaaagccct gagggcctgg 60
cttgtgtgaa cntataaaan aatggtggcc gcgctgtgcc tgctcatntt gcctacatgt 120
cccnng                                     126
```

<210> 3867

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (90)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (160)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (298)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (301)

<223> n equals a,t,g, or c

3499

<220>  
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<222> (304)  
<223> n equals a,t,g, or c

<220>  
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<222> (312)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<400> 3867  
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gggagatgga gagaaagatt tattttgtan agtctttggg tggaattgtg ggtataactgt 120  
tcccttcaca attgactgag tatggataac cgtacataan catttgctac accccaccag 180  
ccccctcccc ctcagaaaaca ccagttcctt cccaaggcca gctgtgccag actccccctcc 240  
cgggactgcc ttcttgtcat cataagcaaa aaaaaaaaaag ggggggcccc cccaaaanaa 300  
naanaatttt tntna 315

<210> 3868  
<211> 309  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<220>  
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<222> (128)  
<223> n equals a,t,g, or c

<220>  
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<222> (139)  
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<220>  
<221> misc feature

## 3500

<222> (153)  
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<220>  
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<222> (159)  
<223> n equals a,t,g, or c

<220>  
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<222> (160)  
<223> n equals a,t,g, or c

<220>  
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<222> (207)  
<223> n equals a,t,g, or c

<220>  
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<222> (219)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (240)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (250)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (263)  
<223> n equals a,t,g, or c

<220>  
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<222> (265)  
<223> n equals a,t,g, or c

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gggggggggaa aaaaaaggcc ttgggggggt ggaaccncc cccctttggg cccaaagggg 120  
gttttaaancc ccgggggggt tccccccggg ggnaaaaann tttcccccc cccggggggg 180  
ggttttcccc gaaaaacccc cccaanacg ggcccgggnt ttttccccg ggtttggggn 240  
cccccccccn ttttttggg gtntntcccc cccccccca aaaaaaaaa aaaaaaatt 300  
ttttgggtt 309

## 3501

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<213> Homo sapiens

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<222> (10)  
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<223> n equals a,t,g, or c

<220>  
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<222> (33)  
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<220>  
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<220>  
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<222> (37)  
<223> n equals a,t,g, or c

<220>

## 3502

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<222> (42)  
<223> n equals a,t,g, or c

<220>  
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<222> (49)  
<223> n equals a,t,g, or c

<220>  
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<222> (50)  
<223> n equals a,t,g, or c

<220>  
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<222> (59)  
<223> n equals a,t,g, or c

<220>  
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<222> (120)  
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<220>  
<221> misc feature  
<222> (131)  
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<220>  
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<222> (133)  
<223> n equals a,t,g, or c

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<222> (167)  
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<220>  
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<222> (179)  
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<220>  
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## 3503

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<222> (187)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (200)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (212)  
<223> n equals a,t,g, or c

<220>  
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<222> (218)  
<223> n equals a,t,g, or c

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<222> (219)  
<223> n equals a,t,g, or c

<220>  
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<222> (222)  
<223> n equals a,t,g, or c

<220>  
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<222> (250)  
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<220>  
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<222> (277)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (286)



3504

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (307)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (338)

<223> n equals a,t,g, or c

<400> 3869

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ganccatgan ccgntcaac tgctgtggnn ncnctnnatn tncggatcnn gacgactcnc 60
cctatttcac atacaacaga tcttttaccc ccattctgtt agtaataaca atctcgcccn 120
cccacacctat nanacctgta ccactcagga aggatcacga ccaaatnagt atagggttnc 180
ttctntnaac tttctgtatn acatccgaac tnatgatnnc ancgggggtg gtgttggcag 240
ttggaattgn gggcctcgag ctggctgccca tgattgngtc catntntcta ttactgcaat 300
ctacaangaa tccgcttact gcctctgccca ctaatggntg cccccctggg aactct 356
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<210> 3870

<211> 550

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

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<220>

<221> misc feature

<222> (92)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (103)

<223> n equals a,t,g, or c

<220>

3505

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<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (181)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (196)  
<223> n equals a,t,g, or c

<220>  
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<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (243)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (287)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (299)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (302)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (362)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3506

&lt;222&gt; (397)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (418)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (446)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (461)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (497)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (502)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (525)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (545)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (550)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3870

```
tanatcgggc cccaaaaggc cttcctttaa aattcccccg gaaactttct aacnttaa at 60
aaaagngggg gaaaaaaaaa gccttggggg tnggaccccc ccnccttggg ccaaagnggg 120
ttaaaccccc gggggttccc cggggggnaa aaattttccc cccccggggg ggggtttccg 180
naaaccccc caaccnggcc cgggttcccc cgggaaaccn caaaaaaaaa tttttaaaaa 240
ggnaatttgg ggggtttaaaa aggaaacccc cttcccttgg gaaaggnaac ccccaaaaana 300
anaatttttt tttgggtttc ccccccaaat tcccttcctt ttaaccccc cccccctttc 360
cnaacaaaa acccttgggc cttttttaac ccaaggnaaa aattgggggg aaatttcnaa 420
```

## 3507

```

ttgggtttcc ccccccccc tttttnaatt tgggtttttgg naaagggggg tgggaaaccc 480
caaacctttt ttaaaanttt tnggcccttt tttccccct ttggncctt ttcccccttt 540
ttggnaaaaan                                     550

```

```

<210> 3871
<211> 277
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc feature
<222> (227)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (241)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (251)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (270)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (275)
<223> n equals a,t,g, or c

```

```

<400> 3871
cagaggaggg cagcagaagg ggggtggtgtc tccaaccccc cagcactgag gaagaacggg 60
gctcttctca ttccacccct cctttctctc cctgccccca ggactgggcc acttctgggt 120
ggggcagtggt gtcccagatt ggctcacact gagaatgtaa gaactacaaa caaaatttct 180
attaaattaa attttgtgtc taaaaaaaaa aaaaaagggc ggccccncta aaaaatccaa 240
ncttactttc nctttcatgc aacttcatan ctctnct                                     277

```

```

<210> 3872
<211> 550
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc feature
<222> (2)
<223> n equals a,t,g, or c

```

3508

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (172)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (201)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (230)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (254)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (257)  
<223> n equals a,t,g, or c

<220>

3509

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<222> (265)  
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<220>  
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<222> (280)  
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<220>  
<221> misc feature  
<222> (288)  
<223> n equals a,t,g, or c

<220>  
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<222> (311)  
<223> n equals a,t,g, or c

<220>  
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<222> (316)  
<223> n equals a,t,g, or c

<220>  
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<222> (322)  
<223> n equals a,t,g, or c

<220>  
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<222> (332)  
<223> n equals a,t,g, or c

<220>  
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<222> (333)  
<223> n equals a,t,g, or c

<220>  
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<222> (338)  
<223> n equals a,t,g, or c

<220>  
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<222> (344)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3510

<222> (365)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (421)  
<223> n equals a,t,g, or c

<220>  
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<222> (423)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (444)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (449)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (453)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (480)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (497)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (502)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (519)  
<223> n equals a,t,g, or c

<400> 3872  
cngcccccaa aaagggcctt ccctttaaaa attcccccn ggaaactttt nttaaccttt 60  
aaattaaaag ggggggggaa aaaaaaaggn cctttggggg gtngaaaccc gcccccttt 120

## 3511

ggggccaaag ggggggtttaa acccccnggg ggggtttcccc cgggggggaa anaatttttc 180  
ccccccccgg ggggggggttt nccgggaaaa ccccccccaa accggggcccn ggttttcccc 240  
cggggcccttt gggnggnttt aaagntttgg gggggccccc aaccaanaa agggccccct 300  
ttgggggggc naaggncct tnggttttaa gnnaaagncc ccngggccct ttaaaaacc 360  
ccttnccccc cggggaaacc aacccccctt ccccccttc ccaacccca accaaaccaa 420  
ngnggaaacc cccctttgga aagnttgga agnggaaagg ggaagggggg ggcttggggn 480  
aaaaaccct tgggggnatt gnggggtttt gggcccaana aggggaggaa acctccaagg 540  
gtccttggc 550

<210> 3873

<211> 450

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (29)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (85)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (178)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (184)

<223> n equals a,t,g, or c

<220>

<221> misc feature



3512

<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (199)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (206)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (262)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (275)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (305)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (350)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (365)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (372)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (380)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (387)

3513

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (406)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (411)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (423)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (430)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (448)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3873

```

gaaccncccc ccttgggcca aggnnggttna accccggggg tttccccggg gggaanaatt 60
ttcccccccg ggggggggttt ccggnaaacc ccccaaaccg ggccgggttc ccccgggaaa 120
ggggggccaaa ttttcccccc cccctttttt cccaaccaa aaaccaaagg tttaaagnaa 180
aggnaacccc cttnaacna accaanggtt tgggaaaaaac cttttttttg gggggggggg 240
aaactttttc ccttgggaaa gnaaatcccc aaggncggg tttccccctt aacccccaaa 300
aaggnaaacc ccccccaaaa ggcccccccc aaaaaccttt ccaaaaaggn cttttaaccc 360
aaggnccaaa gncccaaggn ccaacnttt tccccccca aaaggncccc nttggccctt 420
ggnaaccccn aaccaagggt tccaacnaa 450

```

&lt;210&gt; 3874

&lt;211&gt; 557

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (161)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (211)

&lt;223&gt; n equals a,t,g, or c

3514

<220>  
<221> misc feature  
<222> (247)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (250)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (316)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (318)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (345)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (354)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (362)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (424)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (441)  
<223> n equals a,t,g, or c

<220>  
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<222> (453)  
<223> n equals a,t,g, or c

3515

<220>  
<221> misc feature  
<222> (456)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (462)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (465)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (485)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (515)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (518)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (528)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (536)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (537)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (554)  
<223> n equals a,t,g, or c

<400> 3874

3516

```
gttgtgtgca gagattgagt gtggaaacca gtgggaaagc caatagcata gcctcatgtg 60
agctgggagg ggactgaact ctggagggtg ctctggagct ggatgtgaca ccaagcatca 120
ccagatttgt ggtggaatgt gggggaagaa caggagccta ngagaacagt cccaccccag 180
gcaggctgga gcacctgaat ggatagagga ngtcgttcct gaactgggca gcctgggcag 240
gacacanatn ttggaaatga aaccaggggt cctctgatac aggttacatt tgaaatgttt 300
gcaaaaatcc agttananat gtcaaaaaag cagttagatc ttgtnattct gaanctcatt 360
tnaaaatcca aaatagccca attttagttt ggttttctcc aaccttaact tattagggaa 420
tggntttgaa ttccctgcca naaagaatgt ttnacngaag tnaanaaagg atccccctaga 480
acaanttatg cttaatcccc ttttttgatg gtcenatnaa gaagaaanac cccttnngga 540
aaaaggaaaa accnggg                                     557
```

&lt;210&gt; 3875

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (31)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (42)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (109)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (121)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (139)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (142)

&lt;223&gt; n equals a,t,g, or c

3517

<220>  
<221> misc feature  
<222> (206)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (226)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (229)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (233)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (234)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (239)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (250)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (260)  
<223> n equals a,t,g, or c

<220>

3518

<221> misc feature  
<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (311)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (324)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (329)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (335)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (340)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (358)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (361)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (364)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (399)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3519

&lt;222&gt; (423)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (426)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (474)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (481)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (511)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (513)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3875

```

tacnatgccaa aaaggcttcc tttaaatgcc nccgcaactt tntaacttta aataaaaggg 60
gggggaaaaaa aggccttggg ggtgggaccc cccccctttg gcccaaggng gtttaacccc 120
nggggggttcc cccgggggna anatttttcc cccccggggg gggtttcccg gaaaccccccc 180
caaaccgggc cgggtttccc ccggcnaaaa ggccctttta ttccnttna agnnaaanna 240
aaggnccccn aaccaaattn ccccttggg tttttaggaa aacnttggga aaaaaaaggg 300
ttgggggggcc naatttggcc caanaaggna aattnaaaaan aatttttttt aaattttntt 360
nggncctttg ggtttttccc cctttttggg ttcccttna acccttgggc cttttttttt 420
ttnttttttt cccccccccc ctttttgggt ttgggttttg cccttgggtt tccnaaaaag 480
nttttttttt tgggggggtt aatttcccaa ngnaaaaaaa atttaaaaaa acccaatttt 540
tgggaaaaaaa                                     550

```

&lt;210&gt; 3876

&lt;211&gt; 101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;



## 3520

<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (82)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<400> 3876  
catcgcccaa aaggcttcct tnaaatcncc ggaactttca acttaaataa aggggggaaa 60  
aaaggctttg gggtnggacc cnccttgg gccaaagnggt t 101

<210> 3877  
<211> 556  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (258)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (316)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (398)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (442)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (446)

3521

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (456)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (467)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (517)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3877

```
aattttcttgt acaaaaattgt ttattttgcct tttcttttgtt tgtaacttat ctgtaaaagg 60
tttctcccta ctgtcaaaaa aatatgcatg tatagtaatt aggacttcat tcctccatgt 120
tttcttccct tatcttactg tcattgtcct aaaaccttat tttagaaaat tgatcaagta 180
acatgttgca tgtggcttac tctggatata tctaagccct tctgcacatc taaacttaga 240
tggagtttgt caaatgangg aacatctggg ttatgccttt tttaaagtaa ttttctttaa 300
gaactgtcac atgttntttg ttgaattgtg gaatttggtta ctctgccttg gactatggac 360
agtcaacaat attttcttaa aaatttgcac tattgcanaa cgggtgttat tatccaaggt 420
actccttacc ctaatttttt tngtttctgc ctggtncceg ttacaanaaa cattttccct 480
tttaaatggg ttaccttgcc ttttttaaaa cttttgnttt taacccccct ttaaaaaatc 540
ctgccttttat tgggca 556
```

&lt;210&gt; 3878

&lt;211&gt; 99

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (50)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

3522

<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<400> 3878  
aatantttttt angatttcgt agtctttttta attaaaaata aggggttttgn acnccctttt 60  
ttttaaaaaa tgnctctttt tttntnntg attagtntt 99

<210> 3879  
<211> 289  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (46)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

3523

<220>  
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<220>  
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<220>  
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<222> (238)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (282)  
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<220>  
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<222> (287)  
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## 3524

&lt;400&gt; 3879

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ggataaatatt tccataattt ttnatttgaa attttgctga ttcttnaaat gtnttgtttc 60
ccagatttca ngaaactttt tttcttttaa gctanccaca gcttacngca atttgataaa 120
atatactttt gtgaataaaa attgagacat ntacattttc tccctatgtg gtcgctccan 180
acttgggaaa ctattcatga agtatatata ttgtatggta atatagttat agcacaantt 240
caataaaaaat ctgctctttg tattgcncctg attgtgngct angcacnga 289
```

&lt;210&gt; 3880

&lt;211&gt; 67

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (39)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (41)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (54)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (66)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3880

```
aggaaacttg tgcattacat ttttcctgat caagcaggna nggagcaana tgtncatata 60
tatttnt 67
```

&lt;210&gt; 3881

&lt;211&gt; 144

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

3525

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (121)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<400> 3881  
ccgcactttc cagcagggat cnngaaganc acccgagtcc caagaatggg gttttgcttt 60  
ttaaaaaaga aaaaagaagg gtnattgcng ggattgaagt tcgcctggcn gtctatccgc 120  
ncaaggatcc tctgtccttc atan 144

<210> 3882  
<211> 99  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>

3526

<221> misc feature  
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<220>  
<221> misc feature  
<222> (33)  
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<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
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<222> (93)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (99)  
<223> n equals a,t,g, or c

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atgccnaagt tnatactcta ttgagaaaag ctnggtacgg gttgcaggta cnagtcgta 60  
attcccggt cgaccacgc gtccgctccc gcngggccn 99

<210> 3883  
<211> 99  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
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<222> (37)  
<223> n equals a,t,g, or c

<220>  
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<222> (39)

3527

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<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (94)

<223> n equals a,t,g, or c

<400> 3883

tttttttggga catnntcccc ccttttttttt tttatcntna nccccccctt ttttttttaa 60  
aaaaaaaaaag ggggggggcc cccccccctt tttnggggg 99

<210> 3884

<211> 99

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c



3528

<220>  
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<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (92)  
<223> n equals a,t,g, or c

<400> 3884  
cncctttggac anntcccccc ttttttttttg atctnnancc ccccntttttt ttttaaaaaaa 60  
aaagggggggg cccccccct tttttggggg gncccaaaa 99

<210> 3885  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3529

&lt;222&gt; (104)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3885

gnnccccccct ttttttttaa aaaaaaaaaa aanatttttt tttnttttt tttttggggg 60  
gccccccccccc cccctttttt ntttaaaaaa aaaaaaaaaa aann 104

&lt;210&gt; 3886

&lt;211&gt; 188

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (19)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (32)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (84)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (115)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (118)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (154)

&lt;223&gt; n equals a,t,g, or c

3530

<220>  
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 <222> (172)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (186)  
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 ccggcagggg cttggggcag ccnccctct cctccacca gaccaagtgc ctganganct 120  
 gcctgccttc ttccatctga aaaagcacc tccntcccc tttgacttgc angagccacc 180  
 aggganca 188

<210> 3887  
 <211> 542  
 <212> DNA  
 <213> Homo sapiens

<400> 3887  
 ggcattcttct gaggtcaatt aaaaggagaa aaaatacaat ttctcacttt gcatttagtc 60  
 aaaagaaaa atgctttata gcaaatgaa agagaacatg aaatgcttct ttctcagttt 120  
 attggttgaa tgtgtatcta tttgagtctg gaaataactg atgtgtttga taattagttt 180  
 agtttgtggc ttcatggaaa ctccctgtaa actaaaagct tcagggttat gtctatgttc 240  
 attctataga agaaatgcaa actatcactg tatttttaata tttgttattc tctcatgaat 300  
 agaaatttat gtagacgcaa acaaaatact ttaccact taaaaagaga atataacatt 360  
 ttatgtcact ataattcttt gttttttaag ttagtgtata tttgtttgtg attatctttt 420  
 tgtggtgtga ataaatcttt tatcttgaat gtaataagaa tttggtggtg tcaattgctt 480  
 atttgttttc ccacggttgt ccagcaatta ataaaacata acctttttta ctgcctaaaa 540  
 aa 542

<210> 3888  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

<220>  
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<220>  
 <221> misc feature  
 <222> (458)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature

## 3531

<222> (473)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (524)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (549)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (551)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (552)

<223> n equals a,t,g, or c

<400> 3888

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gggtagatcc acccttatgc ttctcagttt agcataacct cttatggatt ttcacaaaat 60
tcagcgtggt ggctcactgga aagagccttt tcctttctcct tttcttactc tcccctcatg 120
gtgttccccct cttaaaggag aggagctttt aatttacact taccacctca tttgcttttc 180
tggaggccat gcaatatagg cgggactaca gagttaatct cttttttaca aatgaggcca 240
agagaagcct nattgggttca cagtcattgca gctcactctg tccacccttg tattctcaga 300
tgcaggacaa ttgcatttta gttttatttt gtggagggtgc agaataattta ctctttctgt 360
ccaacccttg attctgccga ggaagacact gatgggtttga tgagtgattc agctgttttg 420
gctaaggggc ttttgaggct gatggcaggg gtttgatnaa ttcaaagtag ctntagacat 480
tatcacagac tgaatagatc ttttaactggc tcctacatgt gtgntttcaa atgtgtatag 540
aatgctatng nnattaaata a 561
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<210> 3889

<211> 103

<212> DNA

<213> Homo sapiens

<220>

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<222> (1)

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<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

3532

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<220>  
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<222> (63)  
<223> n equals a,t,g, or c

<220>  
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<222> (64)  
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<220>  
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<222> (102)  
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<400> 3889  
naagtatggt acccctgcng gtaccggtcc ggantttcccg ggtcgaccca cgcgtccggc 60  
cgnntaagag aagttgtaaa gtatgtatta ttcggccctg gnt 103

<210> 3890  
<211> 73  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (5)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<222> (63)  
<223> n equals a,t,g, or c

<220>  
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<222> (73)

3533

<223> n equals a,t,g, or c

<400> 3890

ttacnaaana gaggatttac aaaaaccagc tagaggatat gatggaaaga agcaaatgaa 60  
anncgggcag gcn 73

<210> 3891

<211> 338

<212> DNA

<213> Homo sapiens

<220>

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<220>

<221> misc feature

<222> (79)

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<220>

<221> misc feature

<222> (82)

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<220>

<221> misc feature

<222> (85)

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<220>

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<222> (89)

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<220>

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<222> (115)

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<220>

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<222> (156)

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<220>

<221> misc feature

<222> (158)

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3534

<220>  
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<220>  
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<222> (261)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (277)  
<223> n equals a,t,g, or c

<220>  
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<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (327)  
<223> n equals a,t,g, or c

<400> 3891  
atgcacacaa tgccacgtgc ctngtgaaaag catgaagcaa aagaaaggat gagatcaaag 60  
cctgacccaa cttgacttnc tncntagnt gagccaccgc accttgctgc ccctntcctc 120  
ccctttttgcc tctgtcaaatt gacctactct gccctntntc ccagntgctg ctagaccag 180  
agcacttgga gcaaccagct ggagggtttg gtaggctcac ccttggttgctg ctgatttctt 240  
ggctccacag ttctcaatgg nttgagccag ctcanntctt ttctcacagg gaactggagc 300  
aaaaatcctg tangagcaat tcttgnggtt ggacaccc 338

<210> 3892  
<211> 70  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)

3535

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

<223> n equals a,t,g, or c

<400> 3892

gctgttttta aaaagtaaag ttcttagagg ataaaaacag ccaccaant ggngcntttt 60  
naaggatcna 70

<210> 3893

<211> 132

<212> DNA

<213> Homo sapiens

<220>

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<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (23)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (95)

<223> n equals a,t,g, or c



3536

<220>  
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<222> (107)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<400> 3893  
gagcgcgttn gnagacaang atncaaagac aagaagaaaa taattctgcg cacttaagca 60  
ctggagagaa aggattagga tagaatggga gacngcttt gcacaannat tccanggtat 120  
aggcgccaan gg 132

<210> 3894  
<211> 310  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<222> (20)  
<223> n equals a,t,g, or c

<220>

3537

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<222> (76)  
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<220>  
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<222> (192)  
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<220>  
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<222> (198)  
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<220>  
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<222> (210)  
<223> n equals a,t,g, or c

<220>  
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<222> (259)  
<223> n equals a,t,g, or c

<220>  
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<222> (260)  
<223> n equals a,t,g, or c

<220>  
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<222> (280)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (291)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (294)  
<223> n equals a,t,g, or c

<400> 3894  
cttacgatan tnttgngcan gtaccctgc aggtaccggt ccggaattcc cgggtcgacc 60  
cacgcgttcg tgtttnctgt agactgaact gctagaaaga tgagatgtta aaattcaata 120  
taaacttgaa gaattttgta taattataat tatacaaaat ataggtaggg tgcacaatgt 180  
tatcaaatgt tnatcagnat caaatgaaan cacctttgat aagctgcttt tgaaaatgct 240  
gcctttttta agaaatcgnn aattattgac atctgacagn actaacattg nggnagctgc 300  
tctacagatg 310

3538

<210> 3895  
<211> 349  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (166)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (167)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (177)  
<223> n equals a,t,g, or c

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3539

<220>  
<221> misc feature  
<222> (180)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (297)  
<223> n equals a,t,g, or c

<220>  
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<222> (314)  
<223> n equals a,t,g, or c

<220>  
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<222> (315)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (328)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (343)  
<223> n equals a,t,g, or c

<400> 3895  
tggaaaanttc ttctatantn ttaggcangt acccctgcag gtacacgggc cggaattccc 60  
ggggtcgaccc acgcgtncgt gtgggtccac ccaatatctc tcaggcatct acaaaggctc 120  
tctcttcctc cgtcagagtc tggactgggt tcactgggtc ttgntnnatt gactgancan 180  
atgtgattga caacagctgt gcctaggggt taacctagtg ccccttgcta gatcaagtac 240  
ctgactccca gcccgagaatt gcccatctca gcaaaggagg gtggcattga gacttangtg 300  
gatcataggc actnnecatct tcatgagncc catcgcacat tanaataaa 349

<210> 3896  
<211> 69  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)

## 3540

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<400> 3896

gccgggngat ccntgctgtg aggccaaggg cggcatgacc cgaggtggca agnagagcnc 60  
gagaacgac 69

<210> 3897

<211> 221

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (80)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (94)

<223> n equals a,t,g, or c

## 3541

<220>  
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<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (190)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (202)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (216)  
<223> n equals a,t,g, or c

<400> 3897  
ggtggatgcg gangcttggg tgcgttcaag aattcaaaact ttnaaccctgt aaacccaanc 60  
ggccattggg ccnnaaagggn aaagggcatt ttgncttggc tttgggaaaag gtttggttaa 120  
aatggggaac ccggttttaa aattaaacct tgggnttttt ttaaacccaa aggaaaaang 180  
gggtttttcn.ttttgaaaaa anaaaaactt ttgggncccc c 221

<210> 3898  
<211> 237  
<212> DNA  
<213> Homo sapiens

<400> 3898  
ggcctcctcc agcagagacc ctcggaaccc tgcagggcct ggacttgggg tgaacagggc 60  
ttcagtcagc gcaagtattc catttgcatt tggtaatttt tcatgccacc tattttatgaa 120  
tatataaatc tttataccaa atctatTTTT taaaacatgg aaaagttgcc tttatggaaa 180  
cttggcagag ccagagtgtg cacattccta aaccattaaa cagatttcta taacaaa 237

<210> 3899  
<211> 53  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (3)  
<223> n equals a,t,g, or c

3542

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<400> 3899  
ganacaattt ggcaccactt tgggggcttt tggaaaatcn tncccnagaa ngg

53

<210> 3900  
<211> 479  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (290)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (371)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (443)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (453)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3543

<222> (454)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (456)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (471)  
<223> n equals a,t,g, or c

<400> 3900  
cctgcaggta ccgggtccgga attccccgggt cgacccacgc gtcccgctgag ttagaaaaat 60  
catctttttcc aaacaccact gaaatcatgg actaggacaa ggtagccca tgagtgttta 120  
gaccagtgag gtgagcagct gctggggaca ggacccttgt ctggtatcga tggcagggaa 180  
ggctgtgagc ctcccctcgt gtgggcatca gcctcagcct ccagtgggg gtcacccagg 240  
gagcatatct cctggtgaga agtacaggag cttcacattc cctggatacn gtcccagccg 300  
aaatgttcac cgtgaatccg gcaacctgtg gagctgattt ccatttctaa ggaacgaggg 360  
gggatgggga ngaaccccc aggacagcac caacagtcct gcgggggacct tttcccgga 420  
acccggtctt cttcgggtggt gangcatgtg gcnnngntccc gaaaggcccc ngggggggga 479

<210> 3901  
<211> 421  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (150)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (197)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (237)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (260)



3544

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (286)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (331)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (397)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (412)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (418)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (421)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3901

```

ggcaggcacc tcaagaagat ggaccttgga ccaaggctgt aactccacct gtgaaagatg 60
ataatgaaga tgtttttctct gccagaattc agaagatgct gggaagctgt gtatctcatg 120
caacttttga tgatgatctt cctgggtgtan gcaatcttag tgaattttaa aagcttcctg 180
agatgataag accacanagt gccatatcaa gctttanagt gagatccccct ggtcccnac 240
cacaagggct actggcacan ttatgtaaaa ggcatactga ctcttntagc tctgatatgc 300
aagcctgttc tcaagacaaa gccaaaatat ntcttggttc cagcatagat tcagtcagtg 360
aaatggcctc ttcttagtga agggagtctc tctgaanaag agggataccc tngatggnca 420
n                                                                    421

```

&lt;210&gt; 3902

&lt;211&gt; 421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (383)

&lt;223&gt; n equals a,t,g, or c

3545

<220>  
<221> misc feature  
<222> (410)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (420)  
<223> n equals a,t,g, or c

<400> 3902  
gcaattctga ggtgggtttat tgggagtcct tctacatttc tottagataa ctctgcactc 60  
tgggtgggcta ttgtgtagcc ttactgcccc agagtgcctg ttagccaaat atttcccctc 120  
tgataggaat attttctaag aatcagctga taacttgcgt gctggacett gttatctgtg 180  
cccctgggag acacacgttt tcttgggtttt gaaaacctga aacacaggca actttacatt 240  
ttggggaatt agctgatgcc tcctgaagcc tgaggagggtg gcgggggaata tgagcgggtgc 300  
tgtctctctc aaaagtgtccc tttagatgat tccccctcct agggctgcct gcaggggctg 360  
tatgcttggg aaagattgtg tangtgacag tgaatcagaa tgaagtggtn agattttgtn 420  
t 421

<210> 3903  
<211> 51  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

3546

<400> 3903  
gagacttatt taattatgnn cnccatggaa atcactctcc ngttggncta t 51

<210> 3904  
<211> 139  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
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<222> (19)  
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<220>  
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<222> (23)  
<223> n equals a,t,g, or c

<220>  
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<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
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<222> (124)  
<223> n equals a,t,g, or c

<220>  
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<222> (129)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)

3547

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3904

```

tggaantcnc tagctttgnt gcncaagtgt atgccgtgga tggactanat gagttactct 60
tcctatggtg aatacgacgc atgggcgcac atataaagac tggggtggna tagatcccag 120
aaanggtcnn tacgaggtt                                     139

```

&lt;210&gt; 3905

&lt;211&gt; 475

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (384)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (432)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (441)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (467)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (473)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3905

```

ggctgacttg cttattgagg tcggcagctc ccgagaagca ggagaagcag agtttttgca 60
gacagaccca cgaagtcaag catgcggagt gcagccaagc cctggaaccc agccatcaga 120
gcagggggcc acggcccaga ccgggtgcgg cctctgcctg cagcctcttc cggcatgaag 180
agttctaagt cttcaacttc cttggccttt gagtcccgac tcagcaggct caagagggcc 240
agcagtgagg acacgctcaa caagccagga agtaccgctg catcgggggt ggttcgcctg 300
aagaagaccg ccaactgccg agccatctcg gagctcacgg agagccgcct gaggagcggc 360
acaggggcct ttacaacaac taancggaca ggcatccag cccacggga attttcagta 420
actgctcaag anagaggtct ngtgccacgt ggtccctcca acctcangaa atnag      475

```

&lt;210&gt; 3906

&lt;211&gt; 69

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3548

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<400> 3906  
gctcaagggtc tcctccttcc ctcccccccc ccccccgtea cttggntnat caaccttnnn 60  
ggcatttgc 69

<210> 3907  
<211> 77  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
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<222> (30)  
<223> n equals a,t,g, or c

<220>

3549

<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<400> 3907  
nttgttactc tggttactgg ggnctgtccn cgctggcana gagccgccgc cgcgagggat 60  
gctgntgagg aagccgt 77

<210> 3908  
<211> 436  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (345)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (381)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (408)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (417)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (420)  
<223> n equals a,t,g, or c

<400> 3908  
naaactgtcc tatcttggtc tgtaaaatat tagaacgctt tgttttacaa aaaatgatga 60  
gagaattcctt ccacatgtac ttctgtgctt agaacatctt tacggaccta agcgctggag 120

## 3550

acgttgctgc atgtcggctg gggtttttttt ttcatacacc cgagcacgga aaaactaacg 180  
caaaattgta ttttcttacc tagtggaat ctgaaatgac tgcaaattcc tagtgaatgt 240  
acaggtttgc tttcgtgtcc ctcttttggtt gctttaaaaa gtgacgtgta atttctgacc 300  
catgtttaat ctgtataaaa aaacttctgc cccagttttc tctgnccct ataagagcca 360  
acttgagttt atgccggttg ncattataat tcaataatct tttttcantt aaaaaanaan 420  
attaaaaaag ggcggc 436

<210> 3909

<211> 104

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (77)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (89)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (99)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (102)

<223> n equals a,t,g, or c

<400> 3909

tnaataccct tggactatcc gactacttag ggaaagctgg tacgcctgca ggtaccggtc 60  
cggaattccc gggtcgntcc acgcgttng ttatatatnc anac 104

<210> 3910

<211> 87

<212> DNA

<213> Homo sapiens

3551

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
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<222> (46)  
<223> n equals a,t,g, or c

<220>  
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<222> (65)  
<223> n equals a,t,g, or c

<220>  
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<222> (78)  
<223> n equals a,t,g, or c

<400> 3910  
aattcccacn gactatttcgg aaagctgccc gcttgcaggn accggncctgg aattcccggg 60  
tcgtgccacg cgttttttnac agacgct 87

<210> 3911  
<211> 423  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
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<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature



3552

<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<220>  
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<222> (139)  
<223> n equals a,t,g, or c

<220>  
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<222> (179)  
<223> n equals a,t,g, or c

<220>  
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<222> (355)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (357)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (383)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (385)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (412)  
<223> n equals a,t,g, or c

<400> 3911  
gtttcttnta gttcaataga tgtgcatang gtagcttttag caattaaatt ctnnngaagt 60  
tgatatagtc tcatttttta ttgtcctgta atggaacagt agnaaattca ctaaactttt 120

## 3553

gtgttcagag ttaaattgnt ctcagtactt tcaatgtagg ggaatgtaat aaacatagn 180  
tgtatgtttg ggttttaatt acacatttta tatatgagcc atttagatat gcagtgttaa 240  
ttctatactg catttgaagt gtatgtaact tagcttatgt taatgcagtc atgaagttgg 300  
tttgctccag catcacggta gtcttttaaac attcttttag tgaaattgtc attgntntat 360  
cagtgctaata gtgtgcaagc agngntttta cctgcttttc tcctggcatc anaaagtggc 420  
ggc 423

<210> 3912

<211> 72

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (16)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (34)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<400> 3912

nttaataagc tagaantatt acaaccctg tgtntntggg ncttatcaaa tacttagtat 60  
catggggggtt gg 72

<210> 3913

<211> 106

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

3554

<220> .  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<400> 3913  
nccaggatta aaagccatga gtttcttgtc aaaaattttg ctgctctcct gctggggggg 60  
ggggggggggc agtataccac ngaaatganc tatancaaag nctnta 106

<210> 3914  
<211> 701  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (537)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (540)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (543)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3555

<222> (561)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (636)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (644)  
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<220>  
 <221> misc feature  
 <222> (674)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (684)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (686)  
 <223> n equals a,t,g, or c

<400> 3914  
 gcgtgcaacg tggctccgtg cgctgctcct gtggcgggctt ggctctctcg tgccccctcct 60  
 ggcccttggg ctcccttgccc tcagaagagg ggccccgtca ccctcagaag agggggccccg 120  
 tcaccctcag gtctgggcta gcccggacta gggagggtttc ccctcccttc tagacacttc 180  
 catggcccca gctgtcctga gacgcggctc cagaatccaa ccaggcctga atggcacctg 240  
 ccctctcagc gtggagcgtt tgccaagagc acgccgactg cagggcgcca ggctagagcc 300  
 tggaaaatcta agcggggccc ggctgcccc gctccatgga gtctaggggt cacaacgagg 360  
 caccgccaaa acccaggggg tgacacagga gggaagggggc ccaatggagc cagggcaggg 420  
 tgctgtgtgc acccaacttg actggcctgg ccttggctcc ctgccagccc cctggcaggt 480  
 gacactgtgt gtaggcagag cccgagcctg ggctgcaagg cattccacac acgcagnatn 540  
 canagagagg atccagggtca nggccccggga aagccttgca tgcttggggac acaagtcgtt 600  
 cttggaaaag gacaagcttg gaagggggga caagtnccca aaanacaacgt taccggcttg 660  
 ggaattttcc tttnggccct tgancnaaaa agccttaaaa a 701

<210> 3915  
 <211> 70  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (9)  
 <223> n equals a,t,g, or c

3556

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<400> 3915  
gagccccgnt tatggaagat gaanaggagg atatgggggt ggaatgacct aatggagnaa 60  
aacacattnt 70

<210> 3916  
<211> 88  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
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<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (72)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<400> 3916

3557

gctcaagggtc tcctccttcc ctccccccnc ccacctagan tgggcctcat tgggcagaag 60  
ttgcagnctt tnttanattg cctgcaaa 88

<210> 3917

<211> 394

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (231)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (246)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (320)

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<220>

<221> misc feature

<222> (346)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (375)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (392)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (393)

3558

<223> n equals a,t,g, or c

<400> 3917

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gattaaggga nngtcgttct cagtgaaaat ccaaaaacca gaaaaaaatg tttatacaac 60
cctaagtcaa taacctgacc ttagaaaatt gtgagagcca agttgacttc aggaactgaa 120
acatcagcac aaagaagcaa tcatcaaata attctgaaca caaatTTaat atTTTTTTTT 180
ctgaatgaga aacatgaggg aaattgtgga gttagcctcc tgtggagtta ncctcctgtg 240
gtaaanggaa ttgaagaaaa tataaacacc cttacaccct tttttaatct ttgccattta 300
aaagttcttg cttaactttt gaattccatt tagagaaaaa aattcnttgg taccaggaa 360
ttcatttcaa tttcnaattt gaaatagggt gnng 394
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<210> 3918

<211> 382

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (271)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (320)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (351)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (367)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (379)

<223> n equals a,t,g, or c

## 3559

&lt;400&gt; 3918

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gtccatattt ctctgcatct tctcttggag tgagggaggg tacctggagg ggatcagccc 60
actgacagac cttaatctta attactgctg tggctagaga gtttgaggat tgctttttaa 120
aaaagacagc aaactttttt ttttatTTaa aaaaagatat attaacagtt ttagaagtca 180
gtagaataaaa atcttaaagc actcataata tggcatcctt caatttctgt ataaaagcag 240
atctttttaa aaagatactt ctgtaactta ngaaacctgn catttaaate atattttgct 300
ttagggaaaa gcttttggtt gtgttcgtgt tttgnttggg tcacttggtt nccttccagc 360
cccaaancct ttggtcttnt cc 382
```

&lt;210&gt; 3919

&lt;211&gt; 382

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (16)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (353)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (373)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (376)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (381)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (382)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3919

```
atgcctcatt tgatgnccct ggtccgcttg cagggtccggc cggaattccc gggtcgcccc 60
cgcgtccgta atgatctgca tcagttgtaa aggggaattg gtatattcac agactgtaga 120
ctttcagcag caatctcaga agcttacaaa tagatttcca tgaagatatt tgtcttcaga 180
attaaaactg cccttaattt taatatacct ttcaatcggc cactggccat ttttttctaa 240
gtattcaatt aagtgggaat tttctggaag atgggtcagc tatgaagtaa taggagtttg 300
cttaatcatt tgtaattcaa acatgctata ttttttataaa tcaatgggga aanccttagac 360
```



3560

taatttttaa atngtnccat nn

382

&lt;210&gt; 3920

&lt;211&gt; 241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (17)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (33)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (44)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (56)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (72)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (144)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (175)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (216)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (233)

&lt;223&gt; n equals a,t,g, or c

## 3561

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<400> 3920  
tggactgcat tttaatncga tttccatctt aantgtgtac tcanatataa tgagangtct 60  
cattcgactt antcttgact tctgtgtcat tctttaaacc ttttatggct agagtttcca 120  
ctatcccaat caaagaattc agtncacatc ccagaatcca taaatgtgtt ctggncceact 180  
ctgtaataag gcaccaagaa ttaccactaa ttcatncaga ttttacctat canaatanca 240  
c 241

<210> 3921  
<211> 110  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (94)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<400> 3921  
gcggaanatg gcccgcctgc aggtaccggc ccggaatttc cgggtcgatn tacgcgaccg 60  
ntttaagacc nggtgataac tgagcctcaa tggngcagaa actnggggct 110

3562

<210> 3922  
<211> 138  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (26)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (120)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

## 3563

&lt;400&gt; 3922

gaagaacgng aanganggag accgcnggga gcagagcaaa accagggaac ccaacaaaca 60  
aaagaacggn gccgaagaac gggaccgaac cccacccgaa gngccaagaa acccgaggan 120  
anccggaccc gcnacgcc 138

&lt;210&gt; 3923

&lt;211&gt; 263

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (30)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (39)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (84)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (110)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (126)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (129)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

## 3564

<221> misc feature  
 <222> (136)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (154)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (180)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (185)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (192)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (221)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (263)  
 <223> n equals a,t,g, or c

<400> 3923  
 gggnttttaa agccaggcct gccaggaccn ccaggcggn a caggtgcnaa aggcctccga 60  
 ggaatcccag gcaacgcagg agcngatgga ggaccagggc ccaggggctn gccaggagac 120  
 gcaggncgng aagggnaccc aggacccccca gggnacatag gacccccgagg atccaaaggn 180  
 gcagngggcc ancctggccc agatggatcc ccaggaccca ncggcctgcc agggccagat 240  
 gggccccctg gggaaagggg ccn 263

<210> 3924  
 <211> 296  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (13)  
 <223> n equals a,t,g, or c

3565

<220>  
<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (83)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>  
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<222> (196)  
<223> n equals a,t,g, or c

<220>

3566

<221> misc feature  
<222> (261)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (263)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (273)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (279)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (284)  
<223> n equals a,t,g, or c

<400> 3924  
aattgggccca ccnggggttaa cccccggggg gttncccccg ggggtaaaaa atnttccccc 60  
cggggggggg ttnccgggaa acntctccaa accggggccc ggtttnaaac cgggnntttt 120  
tttgggaaag anaaattggt aaaattgggg gggcaattaa aaggncctt ttttttaaac 180  
caaaggggcc naaccnaaat gggggcccaa atgggggttt taaagggggg cccaaaaagg 240  
gttaaatttc caaaaaaggg ntnttaaaaa ttntttttnc ccnccttg ggtggt 296

<210> 3925  
<211> 152  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

3567

<220>  
<221> misc feature  
<222> (100)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (135)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<400> 3925  
gacctctgct accgnggtag ctgacaacat atagnatgag gtttgatct aagtctgntt 60  
cctctcacat gattacttga cagctaagca tctgattggn ttactgctgt accactgagc 120  
tgaaatgccg tgtgnnccat tnatgtaaaa tc 152

<210> 3926  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>



3568

<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<400> 3926  
gggtcccgaat tccnggggtcg acctacgcgc ccgggatttc agancnattt ggccttaata 60  
catttccagn gtgaccngca gcaggctttt ttcccccaag aaga 104

<210> 3927  
<211> 99  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (79)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (83)

3569

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (97)

<223> n equals a,t,g, or c

<400> 3927

aacgangaac ccttagcang aactcccggg aaatccnngc aaacttttcc ggaaanctgc 60  
cccgcntgca ggtaccggnc cgntaattcc cgggttnac 99

<210> 3928

<211> 99

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (41)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (44)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

## 3570

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<400> 3928  
gttgngaac ccttaagann gactcccggt gaatccccgc naanttttcc ggaaaacagc 60  
cccgccggca ggnacacggt ccggaanncc cgggttnac 99

<210> 3929  
<211> 314  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<400> 3929  
gcacacaaat aatttatttta gcatattggt ttctccaaat gttgttgatt tatattttgg 60  
aatactgtag tgctaagccc aaaacattta agtcggatga tcgaggataa tccttttagaa 120  
ttatggaaac ttggaattgg aacacagttt tagtagcctt tagaacaatc agcacacgtc 180  
aacaggacac tcccaccaga gcagtctggt tgaggcattt cttgaagcct aaatccaaca 240  
agaaggccca gtcaaaaaat atggcagcct cactcacggt tccccattat gttgccttcg 300  
aatccttgaa ctcn 314

<210> 3930  
<211> 298  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (293)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (294)  
<223> n equals a,t,g, or c

3571

<220>  
<221> misc feature  
<222> (296)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (297)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (298)  
<223> n equals a,t,g, or c

<400> 3930  
tangggcagc ctccgtcatc catgccctcc caggaccctc cactcactgc tgtgagtgcg 60  
cttcaccaga accagttaag agacaactat caattcttga gacccaaatt ataagggccc 120  
tgccctgtac tgaagaaaag gggagcacia ggccttaatg gacattgact tgtgaaaacg 180  
caaacatgaa tatggttgga gagccctgga ttaggagggg gacatgggga aggcagaggc 240  
tggcaccatg gtgactgcca cataataaag tgggtgatttg gaaaaaaaaa aanngnnn 298

<210> 3931  
<211> 114  
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3572

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<222> (113)

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<212> DNA

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3573

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aattccccgn tcgnccccacg cntcntnaaa aacaanaaa 99

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ctgcagcacg ctcgtcatat agtgggaanga cncaccccct gcacgtaccg gtccggaatn 60

## 3574

cccgggttcga cccacgcttt cntgacnatg ngtegaagga

99

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<211> 99

<212> DNA

<213> Homo sapiens

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cccacngtc cganttnant ttcaaacc aa aaaaaaaaaa

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<211> 88  
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## 3576

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<220>

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<222> (63)

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canttctaac ttacatatatt tttgaaag 88

<210> 3937

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<212> DNA

<213> Homo sapiens

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<222> (68)

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ttnanccnat gatctactat 80

<210> 3938

<211> 66

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<213> Homo sapiens

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3577

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atgaaa 66

<210> 3939  
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gtattcatga atcacatagt tncaacgacn tcacacctgg gaaagggaat attgcta 117

<210> 3940  
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3578

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cagtaagaag aaggaaaaaa gcaaatgagc aaacagtact atcataagcc nagaaaaaaa 120  
ctgcactgga aagaaatata ccaaactgtn ttntaaaaaa aaaaagnggc taggttnggg 180  
tactagaat 189

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3579

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ctaggtgttg acagggacag gcaaggcggg ggacgaagag aaatgaaagc cacatcgggtg 180  
gcggtatgtt tgaacacaac tcgtctgcta ccgcacgttc cccgctccgc actcancgga 240  
tccccgggac gcagcagggtg gctcctgnac gtgcgcgggc tcctgcaang tgcaaagagt 300  
gcaaatgcac cttctgcaag aagagctgct gttcctgctg ccccntgggc tgtccaagtg 360  
tgcccatgct gcgtctgnca aggggcatcn ganaantgc 399

<210> 3942  
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3580

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tattgtttta ngtttctca aactgtgatt tttctgaaca caataaacta tnttgatgaa 120  
aaaaaaaaatt aantaanaan taaaaa 146

<210> 3943  
<211> 353  
<212> DNA  
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<220>  
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3581

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<220>  
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<222> (196)

3582

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (205)

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&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (217)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (234)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (273)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (294)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (307)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (341)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (353)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3943

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gaanntgaaa nctntctgac angaaatagt nctggatggt ttgaagatct gcngngaaaa 60
ataagtgtgc acctnagacc ttcagntagn cttttatttta tttagaataa aaaatagntt 120
gataacctac cagagttagt gcttnttttaa aaacactcct tggaaagatg gggactgtcc 180
cttangaaag ccatanaagt gattnccaat actttgnaat tgcttttgat tttnagggtcc 240
tttggaaaca atgtgtgatg ttatgtctga tgntgtgttc ttagagctgt gaanagtttg 300
aaaaatntca aggggtttat ttaaattgatg aattatctgg ntgaaattat ggn 353

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&lt;210&gt; 3944

3583

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<400> 3944  
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<211> 456  
<212> DNA  
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<220>  
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3584

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<220>  
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<220>  
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 ttacactagc ctttttagatn tactgtagac atctgtgaaa aattatgaat tggcctttat 120  
 tacaagactt tgttttcaaa cctttatttc tgttccaatg taaatgataa tcgaacttta 180  
 ctggagaaaa gacccatgat tttaaataata gtntatgtc agcttatagt ttacatcag 240  
 agtccatata gctgttagaa agttatgtgc tactgacaaa ataacagttg gcaaaacata 300  
 agacaaaatc tacaatttta ttcacaggat ctaactaatg taccattatt attaccaatt 360  
 gatctcagtg tgctataatt ttggtaacaa tttctttgat atgcttttaa aaatatatat 420  
 atatttacaa ataaaggnat aatttttaan ananna 456

3585

<210> 3946  
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<212> DNA  
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## 3586

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tccccgggtcg acccacgcgt ccgtgaaatt nagttatagt ttaatctttg taatctcact 120  
aatgggtttt atanatgaan ncggaa 146

<210> 3947

<211> 68

<212> DNA

<213> Homo sapiens

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<220>

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antatgtg 68

<210> 3948

<211> 335

<212> DNA

<213> Homo sapiens

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<220>

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3587

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<220>

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<400> 3948

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gctgtactgc	tgggcaccct	gggtccaaac	ccacctccat	ctggacctgc	taggtgccat	120
tgtccaggcc	tttcctccag	acagctcttt	gttagacagt	gcttcccatg	ctgactgctg	180
tccccagaag	cggaggctcc	atcacaggcc	cccatgcccc	gcttgccctt	ttgtgcaggc	240
ccagtggagc	aggcagcaag	taaaggagga	nctggncacc	tggctggggac	cattgacact	300
ggctgagcta	cagngctggc	tgggcattgn	tggng			335

<210> 3949

<211> 179

<212> DNA

<213> Homo sapiens

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<223> n equals a,t,g, or c

<220>

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<222> (6)

<223> n equals a,t,g, or c

<220>

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<222> (25)

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<220>

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<222> (68)

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<220>

3588

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<220>  
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<222> (145)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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caagtctnac atggatatgca ttgagacata cganagactg ctataacctca ataagtattg 120  
aaaatccatt attaccata agggncatct taattcattt tanggaatna nattcatgg 179

<210> 3950  
<211> 104  
<212> DNA  
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3589

<222> (76)  
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<400> 3950  
ntaggcctac tactaaaggt ggaagtntta gaggttaaaa tgggtgttcnt aaattagctg 60  
tatacacaat cattgncatt tactttatga aanggttagga gatn 104

<210> 3951  
<211> 314  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (312)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<400> 3951  
gccccantgg accacctccc tttccctgag gcagggagcc cagagctggg tctgctggtg 60  
cctggcctgc ggcagctgct tacacaacag tgcacacagca ggtgctccca gggcttcttg 120  
gctcctgtga ccgctgcctc cccagtgtgt catcgcccggt gggcaccag gggatggctg 180  
tctggaatag aggcagcagg gtcctgcacg ctgttcatgt actatccgtc cgtggggcgt 240  
gcagaacgtg ctgccggctc ttcttggtg cagccttctc cgacccagtc ctccagtgga 300  
gggggggatc cntn 314

<210> 3952  
<211> 157  
<212> DNA  
<213> Homo sapiens

<220>

## 3590

<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (150)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (153)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (154)  
<223> n equals a,t,g, or c

<400> 3952  
ggataattat ggataatctt tgatcctaca ccagaactct gcaaattggt tttttaagg 60  
ttaattacaa tgtggaattt gaaactatat caatgaactt gtactcttac attaaaagtc 120  
attgcttttac cttcaaaaaa aaaaaaannan atnnaaa 157

<210> 3953  
<211> 130  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3591

<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (83)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (124)  
<223> n equals a,t,g, or c

<400> 3953  
caanaacctc anacttttagg taaaatcggt catcaagcat aatcccactg tgatnattca 60  
nggtccaatt aaaaatttga cgnatgattc caaatgtgac gngaattgaga tcataaaggt 120  
ctantatctc 130

<210> 3954  
<211> 392  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (359)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (375)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (383)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (386)



3592

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (389)

<223> n equals a,t,g, or c

<400> 3954

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gccagcctct ctgtggtaca tcgtgtattg cacggagtc cttttcttcc agagatcttc 60
cttgggagcc ttttcctccc gcgcgtcccg tctcgggtgcc gccttttgct cccgcgcgctc 120
ccgtctctcc acgccgactt ttccctcccgc gcgtcccgtc tctccacgcc gccttttcct 180
cccgcgcgctc ccgncctccc gccgcctttt gtccecgcg gcgtcccgtc cgcgccgact 240
tttccctccc gcgcgtcccgt gtccatgtct cctccttgta acatctggag agatttcctt 300
cactttgtgc ctttttctcc atcgattgat ttctttgttt tacgtttaac aattaaagnc 360
ttaatttcta agaanaaaaa aantancana aa 392
```

<210> 3955

<211> 138

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (101)

<223> n equals a,t,g, or c

## 3593

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<400> 3955  
gggtncataa tttngttcat aagactgaac tctgatgggt gacttctaca acttgnatat 60  
tcagacncga agangaccaa atattcatga aatactggct ntgtgctnat atctcctata 120  
agtccgaata tgctgtga 138

<210> 3956  
<211> 221  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (74)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (153)  
<223> n equals a,t,g, or c

<220>

3594

<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (182)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (192)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (193)  
<223> n equals a,t,g, or c

<400> 3956  
natagttgat acaagaattg tgaactcgtn tcatagatat acatacgaca tattgggtcga 60  
gatgctctaa ctgngcnata nggttgcaact attgcagtga tcttgactag agtttanggg 120  
gaagtaattg agatttcatac ggaatgcacg tancatatt gttacatgga gaantctagt 180  
gntccttgaa cnnttgatc gccccatta aaaaaaggaa t 221

<210> 3957  
<211> 116  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>

## 3595

<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<400> 3957  
ttacncaagt ggggggagaa taaatgttgt caggtcctgn gtcnttcggc cattatgaac 60  
atgtcatngc gtgcctcatg taccangagt ggaaacacaa tcacctgcct anttca 116

<210> 3958  
<211> 126  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (79)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (105)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (116)

## 3596

<223> n equals a,t,g, or c

<400> 3958

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ngaaagctaa aaatgctant gagcggcatg atacgtgtga canttaacat gaagggttcc 60
acctgncaaa ctgtcatgna attcccgagt ggaccctttg ccatntttgt tgggcncaac 120
ttgact 126
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<210> 3959

<211> 250

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (164)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (219)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (240)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (250)

<223> n equals a,t,g, or c

<400> 3959

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gcaaaaccat atttaatttc caggttatct tgaacaaggg aaggaaagat gttaaagctt 60
tgttttcatg gcttgtgtga agctgttaca ggatgtttgt tgccagaaaa ggctggatgg 120
ttttaagaag atgggtcttt ctcttccctc ttatgcttca attntathtt gtaccccaca 180
gcttctcttg aacagcctct tctgatgttn ctaggtagna ggaaccttac aaatacattn 240
atatatatgn 250
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<210> 3960

<211> 134

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

3597

<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (93)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<400> 3960  
gaantntgct caatgatggg cctgtctaag attaccatag accatgcccg catctatggt 60  
ggacccangn ttacacagga ggacccgtaa ttnaattgtc atataaggac tttaatggct 120  
taaaaaaatt tngn 134

<210> 3961  
<211> 56  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (26)

3598

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

<223> n equals a,t,g, or c

<400> 3961

gataaaatgt acaccctna aaaaaaanaaaa taaaaanaaa aangtattaa tnaaaa 56

<210> 3962

<211> 150

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (128)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (139)

<223> n equals a,t,g, or c

<220>

3599

<221> misc feature  
<222> (149)  
<223> n equals a,t,g, or c

<400> 3962  
gcgcgcgccn cactcgccgc aggaccggcc cgcccggctc ccgggggtgcg cctctctcgg 60  
tcccgcgccc tccgggctcg cagggacgtc tcttccctcc cggctcgcgg tcccgcgccg 120  
nccggacncc gnccagagnc ccagcgcgnc 150

<210> 3963  
<211> 216  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature



## 3600

<222> (193)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (210)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (212)  
<223> n equals a,t,g, or c

<400> 3963  
gtgcgacaat tgcaagttaa ttannncnegg gggaaaagga taggacanat ccctggaccg 60  
gtagagacta ggccacncca ttgcatagtc ttgtatgaag ctgcgaanac ttcgttcgct 120  
aggcgagAAC aagtggacgc ctcgttacac atgtacagca aaatgactgc tggTcaagnG 180  
atgaataagt gtntgagtaa cgcttgctgn nnacga 216

<210> 3964  
<211> 149  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3601

<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (116)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (129)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<400> 3964  
ntacaaaang ggatatatat tatgaaatgg tcatttttnt gaananaata ttttgcttga 60  
aatgcatagg actgaaagag atttgtatgt tgttgattaa tgtaacttca tactgnaact 120  
tttaaaaana tttnatctgt aaanccttg 149

<210> 3965  
<211> 139  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (34)

## 3602

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (108)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (129)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (137)

<223> n equals a,t,g, or c

<400> 3965

```
tnaatgttta aatanttgag ggatgtgcct ttcncttat gtcttgctgt atgtagtagt 60
atgtagtagt agcatgatta tatgaagntt caatatgcat taactaangg gataactcaa 120
ngtaatatng aagaaanac                                     139
```

<210> 3966

<211> 117

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (15)

<223> n equals a,t,g, or c

3603

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<400> 3966  
nggggtgactc tttgnccatg tgagggtggta tattcncagg atnctgctgg caagagatgn 60  
tattcctgcc cagtctatca aatgatctct gattctttac gtaatggggg ctnattn 117

<210> 3967  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>

## 3604

<221> misc feature  
 <222> (72)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (85)  
 <223> n equals a,t,g, or c

<400> 3967  
 gacttgatga atgagagaca agaaagatag ttgcagantc atgtgctcat gaatgcatan 60  
 aacacntatc anaagcaaaa atggnttgaa gactttgaaa tact 104

<210> 3968  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (368)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (372)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (374)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (375)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (376)  
 <223> n equals a,t,g, or c

<400> 3968  
 gatttttaagc tattttgagat tgctttttggg aagatcacta gattttatgga ggaatttagtc 60  
 acaaatgact tgtagaaaaat actgtcatat agttcatttc atcattttct gttgcaggaa 120  
 gccactccac cacagaatgc taatatgccca gtggtaccca gtacctcttg tatatagggtt 180  
 attgcaaaata ttgttctgaa atgcttaact tcagaattac atttttttaa gtaaataatt 240  
 gtttttaaatc tattttgtaa agatataaaag tacaatagaa tttctggagt acagattaaa 300  
 ctattttgcac taacacacgt gacgtgcatg atttaataaa ataactttac tctccctaaa 360  
 aaaaaaanaa anannnaa 378

## 3605

<210> 3969  
<211> 55  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<400> 3969  
ggttttaaaaa catttattgg ctgggtgtgg tatatnagat ttatnnaant ngatg 55

<210> 3970  
<211> 84  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3606

<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<400> 3970  
gaaacaatac ataanttnat tgaatctata actngnttta agttgatata atgcattgta 60  
ttatatnttg aaacagaata aaag 84

<210> 3971  
<211> 92  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<400> 3971  
gatttntcttg agtcttgtag atagaaaggn agctgtcaat tnnaaatcag ttnttcagat 60  
tttactgtgg aagcatattt atgacacaca tt 92

## 3607

<210> 3972  
<211> 238  
<212> DNA  
<213> Homo sapiens

<400> 3972  
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catttttcctt taattgtctt ctatatattgt tgaatgctta gcttactaat tttcacttta 120  
aaaagaaagc atataagggtt acttatatga tttttcctct gagaagtgtt ttaatatcat 180  
ggattccatt atgcaatatt ttcattatta taattttctaa ataatccaaa aaaaaaaaa 238

<210> 3973  
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<212> DNA  
<213> Homo sapiens

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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c



3608

<220>  
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<220>  
<221> misc feature  
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<223> n equals a,t,g, or c

<220>  
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<222> (148)  
<223> n equals a,t,g, or c

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cgggtcgacc cacgcgtccg ggggcggggg tctatacttc atacccgccc taggccttgn 120  
tgatgaaaagt tncacacaga annagcanct ac 152

<210> 3974  
<211> 155  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>

3609

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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (129)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (150)  
<223> n equals a,t,g, or c

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cacacatgcc actatgagct ttnnnacncc agctgtgaag agactctgtg angettgcgt 60  
actgttttgc gacctctctc tgacatggcc ttggcaggct gttggaaggc atctagtgga 120  
ngccgatnnc tncgaccact cataccttten catgc 155

<210> 3975  
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<212> DNA  
<213> Homo sapiens

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<220>  
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<220>  
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## 3610

<222> (62)

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<220>

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<222> (74)

<223> n equals a,t,g, or c

<400> 3975

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tncacttgcg accntgttta gagggggtgt acttgaattt 100

<210> 3976

<211> 67

<212> DNA

<213> Homo sapiens

<220>

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<222> (7)

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<220>

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<222> (49)

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<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<400> 3976

gaacgangggg acgtaacgga agcangttgg aacccgttgc cgtcgccnng aaccngggga 60  
accagcg 67

<210> 3977

<211> 386

<212> DNA

<213> Homo sapiens

## 3611

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<220>  
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 gtgtctaaca aacttaaagc tactgtagta cctaaaaagt cagtgttgta catagcataa 120  
 aaactctgca gagaagtatt cccaataagg aaatagcatt gaaatgttaa atacaatttc 180  
 tgaaagttat gttttttttc tatcatctgg tataccattg ctttattttt ataaattatt 240  
 ttctcattgc cattggaata gatattctcag attgtgtaga tatgctattt aaataattta 300  
 tcaggaaata ctgcctgtag aagtttagtat ttctattttt atataatggt tgnacactga 360  
 atttaanaat tgntgggttt ntcntt 386

<210> 3978  
 <211> 273  
 <212> DNA  
 <213> Homo sapiens

<220>  
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<220>  
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## 3612

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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (273)  
<223> n equals a,t,g, or c

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tgctgagcct agttcctggt cagtaataac tgaacagtgc attttggtt tggatgtgtc 120  
tgtggacaag cttgctgagt ttctctacca tattctgagc acacgggtctc ttttgttcta 180  
acttcagctt cactgacact gggttgagca ctactgtatg tggaggggtt ggtgattggg 240  
aatggatggg gganagnan gaggacacac nan 273

<210> 3979  
<211> 156  
<212> DNA  
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<220>  
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<220>  
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<220>  
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<220>

## 3613

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<400> 3979  
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aaccaggccg gtgggggctc tgtgagcccc tntgcacagg aagcctnaga gactctgcat 120  
ggtgttcccc gngcatcctg gccaanagtgg gagaan 156

<210> 3980  
<211> 59  
<212> DNA  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (55)  
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<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<400> 3980  
gctcaagggtc tcctccttcc ctcccccccc ccccccgtnat atctttcant gtgnntnta 59

<210> 3981  
<211> 82  
<212> DNA  
<213> Homo sapiens

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<222> (11)  
<223> n equals a,t,g, or c

3614

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (81)  
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<400> 3981  
ggcagggggg ncgctgcagg ccttagggga agaaccacgg gacanggtag aagacaaacg 60  
ttgnattggg gcttcccttn na 82

<210> 3982  
<211> 296  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (296)  
<223> n equals a,t,g, or c

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tgtgtttctt ataaggtaca cttgaaacta gtgagtgttt gtcacatttc actttcatgg 120  
tatataaaat gcagtttgca tatataactt gaatatctgg tactagtgtt ttcacgcctg 180  
caatcttgga gtctagggtg ccttgctctc ctatttttaa ataagtgaaa tttgggagat 240  
tgtaaaatct gtaaagtttg ttttgtgaaa ataaaatgtt cacagtagaa aaaaan 296

<210> 3983  
<211> 133  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (4)  
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3615

<220>  
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<220>  
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<222> (115)  
<223> n equals a,t,g, or c

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gcgtcgcgcg cctcttnggg gctttaggen ggcttgcccg cgctngggnt tccncgtga 120  
cagtgggtgtg tgg 133

<210> 3984  
<211> 452  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c



3616

<220>  
<221> misc feature  
<222> (8)  
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<220>  
<221> misc feature  
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<220>  
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<220>

3617

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 <222> (429)  
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<220>  
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 <222> (442)  
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 ggtccggaat tcccgggtcg acccacgcgt ccgggtggan ggataggaga aggtcctgag 120  
 tcagtgcctg gtggagggat aggagaaggt cctgagtgtg gactgggtgg agggatagga 180  
 gaaggtcctg agtgaggact gcatggaggg ataggagaag gtcctgagtg agtgcttggg 240  
 ggagggatag gagaaggtcc tgagtcagtg ctgggtggag ggataggaga aagtnctgag 300  
 tnaagtgcctg ggtggaggga tagganaagg tcctgantgt ggactgggtg aaagggatag 360  
 gagaaggtnc tgagtgagga ctgggtgga gggataggag aaagtnctga gtgaggactt 420  
 gngtggagng ataggaaaag gntcttgaat ga 452

<210> 3985  
 <211> 316  
 <212> DNA  
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 <222> (74)  
 <223> n equals a,t,g, or c

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<220>  
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3618

<222> (80)  
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<220>  
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<222> (203)

3619

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (212)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (252)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (278)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (307)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (308)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (312)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3985

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naccgggtccg gaattcccgg gtcgacccac gcgtcttgca aaantaaagg ggctacagaa 60
acactgattt ttangctggn ccctcttggg cttcatgcaa agacaantnt gtgtaaatgn 120
acagaagact ctgatttggg aatatgaaaa tcagtncatn cttgntataa aaaatntttt 180
nacaatngta attatattga agntcatatt gngtaaaata actcatttaa taaaatagaa 240
ctttgattca cngacaaaaa aaaaaaaaaa gggctggnca gctctaaagg atccaagctt 300
acgtacnngt gnatgc                                     316

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&lt;210&gt; 3986

&lt;211&gt; 57

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

## 3620

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<220>  
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<220>  
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<223> n equals a,t,g, or c

<400> 3986  
gctnaagggtc tntctcttcc ctcccccccc ccccccgtn tatntttang acaataa 57

<210> 3987  
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<212> DNA  
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<220>  
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<220>  
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<222> (86)  
<223> n equals a,t,g, or c

<220>  
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<222> (94)  
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## 3621

&lt;400&gt; 3987

gcaccnaccg gtccggaatt cccgggtcga cccacgcgtc ntgagggtttt aagatgccgc 60  
antaggattg gatgaatggg aaattntgct tgcnagcttt 100

&lt;210&gt; 3988

&lt;211&gt; 108

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (21)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (29)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (59)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (64)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (102)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 3988

antatctaag acaccagac ncatgcggnc tgtcccaaca gctgccgcac actaaatgnt 60  
gaangagacg gcaccctgac caagtcagtt acagaaccgc tnagaatg 108

&lt;210&gt; 3989

&lt;211&gt; 104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

3622

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<220>  
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<220>  
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<220>  
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cagancatct gttaccccan aaacaggggc nctatatattg agcc 104

<210> 3990  
<211> 85  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (10)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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3623

<220>  
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<222> (73)  
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<400> 3990  
gaagnccagn acaccattct tgtccttacc cagtttcctc gccctncacc cctccagctt 60  
catgctcagn gtngtgctta ataaa 85

<210> 3991  
<211> 66  
<212> DNA  
<213> Homo sapiens

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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<400> 3991  
gcgccaagnt gtccnagctg gaggtcgtcc tgcacacagac ccaacaatga catggcccgn 60  
cancctt 66

<210> 3992  
<211> 128  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature



3624

<222> (33)  
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<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (103)  
<223> n equals a,t,g, or c

<400> 3992  
ggaacccccn tatagggttg ggggacgctc ccnggcgcgcg gacggccaca ccgggacggc 60  
ngacgcgaac ggcgcgtcca ntntcaccc cgcgacgagg gcntgtgcgg gcagcaccca 120  
gggaggtg 128

<210> 3993  
<211> 144  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (3)  
<223> n equals a,t,g, or c

<220>  
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<222> (26)  
<223> n equals a,t,g, or c

<220>  
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<222> (35)  
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<220>  
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<222> (128)

3625

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<220>

<221> misc feature

<222> (129)

<223> n equals a,t,g, or c

<220>

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<222> (136)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (138)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (144)

<223> n equals a,t,g, or c

<400> 3993

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tcncccccta taggtttgcg ggacgncccg gaatncccg gtcgaccac gcgtccgaca 60
ctcttgggct tacggttgcc aggaagcctt tcccctccag aagacttgcc tgttagggac 120
ctcgccntnt ggggancntc cctn                                     144
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<210> 3994

<211> 384

<212> DNA

<213> Homo sapiens

<220>

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<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (114)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (151)

<223> n equals a,t,g, or c

3626

<220>  
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<222> (152)  
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<220>  
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<222> (153)  
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<220>  
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<222> (154)  
<223> n equals a,t,g, or c

<220>  
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<222> (157)  
<223> n equals a,t,g, or c

<220>  
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<222> (168)  
<223> n equals a,t,g, or c

<220>  
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<222> (231)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (283)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (292)  
<223> n equals a,t,g, or c

3627

<220>  
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<222> (323)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (337)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (353)  
<223> n equals a,t,g, or c

<220>  
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<222> (364)  
<223> n equals a,t,g, or c

<400> 3994  
gctcgtgcaa tggngtgccg gctggaaaga ttgctgcagc agggacatcg ctgcctcctg 60  
gcttaatact tgaacatttt gnatatattt ctgtgtatat aattgatgtg cagnaccaat 120  
gacaaaaata tgggtgcata atagaaccag nnnngtngat cttttagnta tgggctcaaa 180  
gaatctattc atctctaaca tgatattgga aaataatgga tgaaaaatagg naaaatgatn 240  
gcaatgctga ctgaggggtc taaaagggtnc tggaaagcag tangttcatt tntctaaaaa 300  
ctataacatt ctggaggagt atnttcttcc ttacgtnaat acttttcctg cantatttga 360  
aatngtgggc tggggagaaa cagt 384

<210> 3995  
<211> 141  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
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<222> (8)  
<223> n equals a,t,g, or c

<220>  
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<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3628

<222> (26)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (141)  
<223> n equals a,t,g, or c

<400> 3995  
tgacnagngg acaagatcgg gntcanagaa aacggggcacg acagcaccag aacatggggg 60  
aaatacgcca gattngagga ggccaagctg aatgaaaacg gagacgcagg atgaagaaca 120  
cactgcagac canngagagn n 141

<210> 3996  
<211> 516  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (391)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (417)

3629

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (459)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (465)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (478)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (491)

<223> n equals a,t,g, or c

<400> 3996

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gattttctaac ccccttttccct cctaatatgt ttatgtcata attttggcta gattagtgt 60
tacgattttac ataattatta ctctgtaaat gctttttatg atctctgagc catgtagtat 120
attatggcta tttttctttc ttatctatgt gtatttttat tgttattacc taaaaaaaaa 180
ttttctatgt cttatcacta attctttccct aaaatttccc acaattgtgt aaacttacct 240
cagtatattc atagatatga gacattctat caattttacc ctcttaaaga tgcagagata 300
atgcattatg nttcatccca ccatctttaa tgagaagcct ccatcttaga ttaatattag 360
agaatgttaa aatactctgc aatcaggtaa nggacgcttg aaacttcatt ataatgnaaa 420
aggttttctt ttaacacccat aaatattttg aaccctttnt ggggncttgt attcatangg 480
agtttagaat ngacccttta ttacctatgt tttaaa 516
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<210> 3997

<211> 68

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<400> 3997

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ggantaagaa aaagaaaaaag aagagaaaaga gtcagaagga acgtgataaa gaagtaagcg 60
atgatgag 68
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<210> 3998

<211> 405

<212> DNA

<213> Homo sapiens

3630

<220>  
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<220>  
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<222> (17)  
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<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
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<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (83)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (123)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (146)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (244)  
<223> n equals a,t,g, or c

<220>  
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<222> (346)  
<223> n equals a,t,g, or c

## 3631

<220>  
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<220>  
 <221> misc feature  
 <222> (384)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (388)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (404)  
 <223> n equals a,t,g, or c

<400> 3998  
 ncgcctcacc ttggaancct tctnctatag gtnaagctgg tacgcctgca ggtaccgggc 60  
 cggaattccc gggtcgaccc acncgtccgc tctgggtctcc cagcacctgg cccaggtaac 120  
 agncttctga aagcagagcc aagganctgc ntctctcttc tcccagttct acctccccag 180  
 aagccttctc ccccagggtg ggctgatgga gcaagggtcc agactaggag ccttccaccc 240  
 cagntgtgtc tggcgcccct agatctctgc aagggagggtg ttacagctgg atctgagccg 300  
 cttgccttgt gatggtaaga caccaacctt tacattcttc cctgangttg tggttgacag 360  
 agcctgcttg gccccactcg tannccancc agctcctata tcana 405

<210> 3999  
 <211> 138  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (1)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (3)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (7)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature



## 3632

<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (125)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (126)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<400> 3999  
ncnctanagg aaagnttcgg actataggtc aagctggtac gcctgcnggt accggtccgg 60  
aattccccggg tcgacccatt cgtccggatt tttccttttc ggatactagg ggatgaatng 120  
ggaanntaaa gngaaaaa 138

<210> 4000  
<211> 83  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (36)

## 3633

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (77)

<223> n equals a,t,g, or c

<400> 4000

gggaatnttc aatttaaaaa tgagtaaatt canggncaga ttgaatgccg ttcagttttn 60  
tggaatgaat gacattngca ggt 83

<210> 4001

<211> 154

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (75)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (95)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (122)

<223> n equals a,t,g, or c

3634

<220>  
<221> misc feature  
<222> (135)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (149)  
<223> n equals a,t,g, or c

<400> 4001  
gncatagtta caatgcaagt aaactggata ctagttcttt tgncagatnt gttaaagtca 60  
tgcagaataa tatcntgaag agtattgatt gaagnttggtg atattcatca ataaaaatga 120  
gntgataata tgcanaaaaa aaaagccant aaaa 154

<210> 4002  
<211> 648  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (267)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (547)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (589)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (602)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (603)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (609)  
<223> n equals a,t,g, or c

<220>

## 3635

<221> misc feature  
<222> (638)  
<223> n equals a,t,g, or c

<400> 4002

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gaaattatgc ggctgcacct tgccagggtac aatggtaagg aaaactaaag ggagatctag 60
aaaccagcct gacatattaa agagggcttc tgcagagggtg agcttagtct gaattatgga 120
agaactttcc aggcagatac aaatgcaaag gccctgcagt gtgaggagct aaccacacac 180
aaggatggag agcagttcat agtgactgga gcccaggggtg cagctaagga gctggagagg 240
gggaaaggcc ataccaagga gagcctnadc caaagagttt ggaccattaa aggattctag 300
gaagttcaag ctggagacag caaggaagat gtattggaag tgggtgagag aggggatgga 360
agatgggttaa gacactcttg gagtaatcaa atgaaaaata atgaaggtag aaactaaagc 420
agggataaaa aggatggcac tgactctaga ttgttgagtg aaatagatgg catttgggga 480
caatagatta cagtctaggg agaaggattt gagactagga taatttccca gtctctttaa 540
tgggtgangtg attgggtgttg cccctgagta ccgaaaggaa ggggaagttna ggaatgggat 600
cnnatttana cagttgggat attttgaatt tggatgtnta aggaaccc 648
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<210> 4003  
<211> 452  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (207)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (216)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (232)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (242)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (252)  
<223> n equals a,t,g, or c

3636

<220>  
 <221> misc feature  
 <222> (293)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (311)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (387)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (403)  
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<220>  
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 <222> (437)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (442)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (451)  
 <223> n equals a,t,g, or c

<400> 4003  
 gatttaaata ttggcttttt ccagtgaagt attatgttta gtgtacagtg aaaagtttta 60  
 atattatagg ttaaaatttt cttaatcggt cttttctatt cgcttgccaa ggggtgaatga 120  
 aagaacatgg ctgcttctcc cagactgact gaccttggea tccgcataaa gcatcattgc 180  
 tttcaaaaat gaagggtgct taattgntcc cttttntcta tattctgtag gnctcatnac 240  
 ancaaactgc antctacagc ttcttaaagg tcagcgtgtt aacctaacat atnacacagc 300  
 aagaatctgg ntgtctgaac tatttttaaa taaggagcca gatgttttta gtcaggctat 360  
 tctgaccaga cttgacctaa acttcnnttt tattggcata acnggccaat ataattcttg 420  
 ggccaatttg gccaacngga cnagaaaaaa nc 452

<210> 4004  
 <211> 180  
 <212> DNA  
 <213> Homo sapiens

3637

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (167)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (170)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (178)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<400> 4004  
ggttgaaagt catggaacga ataaagtgtc agatttaggg ttaacatttg ggtctgtttg 60  
actctaaagc ccatgttctt tctgctactt tctgttactt cttccctagt ctttaacagt 120  
aatcgttcaa ctgtgattaa actttgcctc tctggaaaaa aaaaananaan aaaaaaanna 180

<210> 4005  
<211> 527  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (451)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (465)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (474)  
<223> n equals a,t,g, or c

<220>

3638

<221> misc feature  
<222> (480)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (486)  
<223> n equals a,t,g, or c

<400> 4005  
gaatagattg aaagcctctt agtgcaggaa gcaggcatca gtatcaaact gatgtcatcc 60  
aatgtaatta ttttaagctc caggtttgtc taagtttggg tgaagaatgt tcaggaacat 120  
gtttgcaaca tacagttatc cagcttacct ttgacagat tcacccttct catcaaaata 180  
cacagtaagc ccaacctaaa aattataagt ttacaaataa aggaatagaa aaacccaaaa 240  
agctaatagt cacataaaaa ttatcttttg ctgcaataaa taggtatgga aatatttgta 300  
gaattggttt aactgatttt gtaaaacaaa tgtcatgcta ttttgccata gtgagacatg 360  
cagtagttct taaaatcaca ttaatagaag gcaagaacat tggaatcaga cttaacagat 420  
acagattcag tgataatgac cattgactaa natacttagg aactnctgag aacngatgtn 480  
tactgnctcc gtccaactga tgacttatgg gtatagataa tggattt 527

<210> 4006  
<211> 159  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
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<222> (63)  
<223> n equals a,t,g, or c

<220>  
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<222> (97)  
<223> n equals a,t,g, or c

<220>

3639

<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
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<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (150)  
<223> n equals a,t,g, or c

<400> 4006  
gggaangccc ncaggtaccg gtccggaatt cccgggtcga cccacgcgtn cggttggtgc 60  
ctntagttga gtttctggcg cccctgcctg tgccccnatg tgtgcctggc cgnagggcgg 120  
ggctgggggc tgnccagcca ccatgcttgn ctgaagctt 159

<210> 4007  
<211> 123  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature



## 3640

<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (110)  
<223> n equals a,t,g, or c

<400> 4007  
gtgnagggnt tngggaacgc cccaggtac cggtcggaa ttcccgggtc gacccacgcg 60  
tncgtatttt taaatttggg caacccttna gtgcaaggaa tnaaantagn actgatttga 120  
cag 123

<210> 4008  
<211> 142  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<222> (31)  
<223> n equals a,t,g, or c

<220>  
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3641

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<220>

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<222> (125)

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<220>

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<222> (128)

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<220>

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<222> (135)

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<220>

<221> misc feature

<222> (136)

<223> n equals a,t,g, or c

<400> 4008

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gcttctanng gaacgctntg gataggncctt ntggggaacg tttcccggta ccggccccgga 60
attcccgggt cgacccacgc gtccggggtc aagacttgga accgcanaaa acgaaatccc 120
atagnagnac aaagnntggc tg                                     142
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<210> 4009

<211> 132

<212> DNA

<213> Homo sapiens

<220>

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<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

3642

<220>  
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<222> (92)  
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<220>  
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<222> (110)  
<223> n equals a,t,g, or c

<220>  
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<222> (122)  
<223> n equals a,t,g, or c

<400> 4009  
actantggaa aggcctatng ggaaagtttc cccggaaccg ccccggaatt cccgggtcga 60  
cccacgcgtn cggnttctcc tgtttctcct tntgctcctg accccacgtn cttgctcttg 120  
gngcccctat tg 132

<210> 4010  
<211> 528  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (48)  
<223> n equals a,t,g, or c

<220>  
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<222> (71)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

## 3643

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<220>  
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<222> (389)  
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<220>  
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<222> (396)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (501)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (503)  
<223> n equals a,t,g, or c

<220>  
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<222> (505)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (517)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (526)  
<223> n equals a,t,g, or c

<400> 4010  
actacttttgn ttaggtggna cgcggccgca ggtaccgggc cggaattncc gggtcgaccc 60  
acgcgtccgc ntntttattg gagcaatcca aaatagcagc tgnccaacaa tacaggaata 120  
cagaagacag tttgaatcac actcattttt tctgaaattt tcaacttcat agaaaggcaa 180  
ttgagtttag aatagagagg tatttgtgtc atgatgaata accatgatct catccataaa 240  
aagaaggcca tatggtcttt cagacaagaa agaattgtat acctgaaatt aagtacaaaag 300

## 3644

cagtatacaa ataaatagtt gaggggaagaa atcagtgaga gttaaaatag taattataaa 360  
gtggtgagat tgttttcagt ctcatgtgna tactgnttac cattaacacg ggccataaat 420  
gnatataaat gttgagtttt agaaagatgt ataatatgta ttatittaca tccttttaac 480  
atatgtatat gtttcaagtg ntnanccaat ttatatnggg tgcaanca 528

<210> 4011  
<211> 268  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>

3645

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<220>  
<221> misc feature  
<222> (162)  
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<220>  
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<222> (209)  
<223> n equals a,t,g, or c

<220>  
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<222> (211)  
<223> n equals a,t,g, or c

<220>  
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<222> (240)  
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<220>  
<221> misc feature  
<222> (243)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (263)  
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gccccgtacc ggtccggaat taccgggtng gacccacgcg tccggcacan ttnntctnac 60  
gcccgaattc aaatcctgta aggatggaag aaacggcctg gagaatattc gggatgagac 120  
accacttgta ttttgatcna atcagacctn ttgacctnn anttacaggg caagattctt 180  
aatgaaaaaa gaggttcaga gatgatgana nagacacgat atttggactt tctgtgggcn 240  
atnacttggtg aaacgtccat tcnaactg 268

<210> 4012  
<211> 340  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (328)  
<223> n equals a,t,g, or c

3646

<220>  
<221> misc feature  
<222> (331)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (334)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (336)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (339)  
<223> n equals a,t,g, or c

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gggtgggtttt gcctttttttt atttgggagt ttatttttta ttttcttctt gacctacccc 60  
ttccctcctt taagtgttga ggattttctg tttagtgtt ccttgaccca gtttcaaaca 120  
gagccatctt ttacagatta ttttggagtt ttagttgttt taaacctaac tcaacaaccc 180  
tttatgtgat tcctgagagc agtatgaggc ctgcaagaaa gtgatcatat aattgtatct 240  
tcactttctt tttatttttg tattacattg ggatgcattg tcatgcatat tttttgtaga 300  
ataaattctc ctttgctata aaaaaaanaa natnanatna 340

<210> 4013  
<211> 385  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (279)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (292)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (318)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (335)

3647

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (375)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (379)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4013

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gggaaatttt ggcggttgta actatggtgg tgggtgggaac tataatgatt ttggaaatta 60
tagtggacaa cagcaatcaa attatggacc catgaaaggg ggcagttttg gtggaagaag 120
ctcgggcagt ccctatggtg gtggttatgg atctggtggt ggaagtgggt gatatggtag 180
cagaagggtc taaaaacagc agaaaagggc tacagttctt agcaggagag agagcgagga 240
gttgtcagga aagctgcagg ttactttgag acagtcgtnc caaatgcatt anaggaactg 300
taaaaatctg ccacagangg aacgatgac catantcaga aaagtactgc agcttaaaca 360
ggaaaccctt cttgntcang actgt 385
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&lt;210&gt; 4014

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (18)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (62)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (73)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (113)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (176)

&lt;223&gt; n equals a,t,g, or c



3648

<220>  
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<222> (191)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (226)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (235)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
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<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (317)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (320)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (332)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (352)  
<223> n equals a,t,g, or c

<400> 4014

## 3649

ggacagaatg tgctgcantg tttctgatcc aatgattcaa gtaatgtcat caagaacctt 60  
gngaacccgc ctncacaccc ccccccttt tcaaccacaa cattggcatc atnctaaggc 120  
tggtaccct cgtgggtcatg ggatgattgc cagtagcagt tggagccttg tgcatnttca 180  
tttaccatgca ncggaagagt caggctggat tctaggggcc ctgtnttaat atganaangc 240  
ttttcccagg aatttactgg ttcataatcct taggtctcat tgctctatag taacttagac 300  
ctgtcatcct ganccantcn ctggcaaagg gnctagaata acctttaagg cng 353

<210> 4015

<211> 67

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (44)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<220>

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<222> (62)

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<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<400> 4015

gctcaaggtc tcctccttcc ctcccccccc cccccgtga gannctttta aaaataaana 60  
antgtan 67

<210> 4016

<211> 92

<212> DNA

<213> Homo sapiens

<220>

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<222> (7)

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3650

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<223> n equals a,t,g, or c

<220>  
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<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (84)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<400> 4016  
gagccantag aattgtgctt tgtgatccag ggctcttggc cagaacagcc ttctngctca 60  
ttaactcagt caaccaaagt ctttctgngt tt 92

<210> 4017  
<211> 103  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3651

<222> (86)

<223> n equals a,t,g, or c

<400> 4017

tacctnactg ctgctgtcgc aactccctgg tcnggactct gatgtncagt cggatggatg 60  
gggaatatan cattgaactg tgttgnttac cttcactatt cgg 103

<210> 4018

<211> 227

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (42)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

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<222> (116)

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<220>

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<222> (173)

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<220>

<221> misc feature

<222> (177)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (180)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (186)

<223> n equals a,t,g, or c

## 3652

<220>  
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<222> (206)  
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<400> 4018  
tcgcttgccg taccgtgccg gnaccgggtcc ggaattcccg gntcgaccca cgcgtncggc 60  
ccttcctcca ttgttgccct ggaatgtacg ggacccaggg gcagcagcaa gtccangtgc 120  
cacaggcatc cctgggacat atgaagctgg gagcaaggaa agggctcttag tcnctgnctn 180  
ccgaanttgc ttgaaagcac ttgganaatt gtgcacgtgt catttat 227

<210> 4019  
<211> 101  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (94)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<400> 4019  
ncctaactct atgtgcacct ggagtangat aatnaaaatc ctgantgctc tctttgcctt 60  
ggtcctgttc tcaatggtga cgactgccac cacnacatgc n 101

## 3653

<210> 4020  
<211> 107  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<400> 4020  
tacaanaata tgagtaagcg gagcgactcg gttaagggaa agcaccgata tnactcggct 60  
ttctgctgnc nttcgtggca gagggactcg gaatnatgca ctntaag 107

<210> 4021  
<211> 129  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3654

<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (31)  
<223> n equals a,t,g, or c

<220>  
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<222> (55)  
<223> n equals a,t,g, or c

<220>  
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<222> (106)  
<223> n equals a,t,g, or c

<220>  
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<222> (115)  
<223> n equals a,t,g, or c

<220>  
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<222> (123)  
<223> n equals a,t,g, or c

<400> 4021  
gtatnacatt anatctacaa nacttccatt nattaggaag cacattaacc atttntatag 60  
catgatatct taaagatgga ggcaaaaagga tataaattct ataatngact tgagnacttt 120  
aanccttgt 129

<210> 4022  
<211> 57  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)

3655

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (47)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (51)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<400> 4022

gctcaaggtc tctctcttcc ctcccccccc ccncacgtat tcanagnnggg ngnccttg 57

<210> 4023

<211> 180

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

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<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<400> 4023



## 3656

tatntgggnac nccngcccgt accggtccgg aattnccggg tcgacccacg cgtccgattt 60  
tgtcctacct gcattctgta aaaattgaaa aaagaacaat tgaatccatc attgggcaga 120  
tgaataaaaag gagataagga tgaaattaaa ataaggttct aatcctaaaa aaaaaaaaaa 180

<210> 4024

<211> 347

<212> DNA

<213> Homo sapiens

<400> 4024

gcaaataatta agaaggttta ccactcatag atccttacta aaagagatat tataggatgt 60  
tctttaggaa gaaaaaataa atactggagg aaagagtagg ttaaaaaata acaagaaaac 120  
ataaaagtata attcattatt tttcgtaaaa aatatttttc ttacaaatgg taaaactaaa 180  
tctctagcca tcaataataa gatgggtgct attttacggg tagtaaaagc atgataaagt 240  
ctttagtaag ttagggaaaa gaccaaaatt aggaaatgat tctgtacagt attaaaaaaaa 300  
gacataaata tatatgtcaa agtggttaagg ataactagta aaaaaaa 347

<210> 4025

<211> 375

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (370)

<223> n equals a,t,g, or c

<400> 4025

ggccaaggta tttcttgtgc ttttgggatc ttatgctgtt tgnaaaatgt tactgtccaa 60  
tgttggaatta ttgttttggg ttcaggcatt tgctgaatag gtgatgatac atgggtattt 120  
ttctgcaagt atttaaacca ggggcatatg caaaggcagt tgtaatttcc tcttggaana 180  
agcgccaaat gtttgaaggt taaaatcaaa tgctaggggt gatatttagg cttataacaa 240  
aataggcttg ttttcaaagc agttttttcc tagagtttta actgttaact cactagtttg 300  
ctgctgtttt taactatgtt aaataacata tggatatttg caaatagatt tattttttcaa 360  
aatgaaaaan aaaaa 375

<210> 4026

<211> 121

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

3657

<220>  
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<222> (17)  
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<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
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<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (114)  
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<400> 4026  
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cgagggggggg gatgggtgta agacaattgg cccgggggaga aagaggggnct gannaaacgg 120  
a 121

<210> 4027  
<211> 229  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>

3658

<221> misc feature  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<222> (225)  
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<400> 4027  
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tgtagagacn atgctactcg atgacgctgt gagaccggac taaatgggag tggagaacgg 120  
gttaggggtgg acgcttgaag atgagcatta tatcacaaca cngtaatgaa acctggtgcc 180  
catgmgacc cgaagacttg tntcttcagc atgcatgggc cttcnaata 229

<210> 4028

3659

<211> 72  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<222> (35)  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (72)  
<223> n equals a,t,g, or c

<400> 4028  
gttggaatgc gntcggagca cttgctctga ggaanaccat agtgactctg tcgaagaaga 60  
atccggnccn an 72

<210> 4029  
<211> 595  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (13)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (286)

3660

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (323)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (577)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (579)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (583)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (584)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (590)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4029

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gctgaaatgc atngtgcttt catcaatgaa ccttttcaaa cttttctatg attgcagaga 60
agctttttat ataccagca taacttgga acaggtatct gacctattct tatttagtta 120
acacaagtgt gattaatttg atttctttaa ttccttattg aatcttatgt gatatgattt 180
tctggattta cagaacatta ncacatgtac cttgtgcctc ccattcaagt gaagttataa 240
tttactactga ggggtttcaa aattcgacta gaagtggaga tatatnattt atttatgcac 300
tgtactggat tttatattgc tgnntaaaac ttttaagctg gcctcactta ttaaagcaca 360
aaatgtttta cctactcctt atttacgacg caattaaaat acatcaatag attttttaggc 420
tgaattaatt tgaaagcaca atttgctgtt ctcaccattc tttcaaggct tttcattgtc 480
aaaggtaata aaaaaggtag gacaattaaa gtgaaaaaaaa aaaaaaaagg gcgggccgctc 540
tagaggatcc aagcttacgt acgccgtgca tgcgacntna tannctcttn tatag 595

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&lt;210&gt; 4030

&lt;211&gt; 119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

3661

<222> (8)  
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<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
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<223> n equals a,t,g, or c

<220>  
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<222> (108)  
<223> n equals a,t,g, or c

<400> 4030  
ctccccangg tccttatgca catgtggact gcactgaaaa gngccnttgg attgaatcat 60  
natgatctat gagaggcatc catcctggat ttggaanagc tcaaatcnga agttaccag 119

<210> 4031  
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<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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3662

<220>  
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<220>  
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<220>  
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 <223> n equals a,t,g, or c

<220>  
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 <222> (518)  
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<400> 4031  
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 gtcgactcat ncgtccggag caaactgctc agcgcgtctc agctcagtgc cgaggaggag 120  
 gaagaaaaac aggccgagtg aaggtgctgg aaaggaggagg aggacgcgag gggaaaggcc 180  
 tgtggggagc cacgggcgtc agagagaccc gggaaggaaag gctctcgggt gggggagcca 240  
 ggagacctgc tctccggcgc agacaggcgc ggcccagcgc tctcctggac gccccgccc 300  
 gcacagctcc cggcgggtgc tctgaggcct cactactcga gcccacccag catcccgcgc 360  
 gcccttcctt cccgaggaac tcgcctcagc ctgatcaggc ttcctggtga gaactganga 420  
 gcggactcac ttgatgtttc ctggaagcag agcaaaatgc tcttgtcctt gtcgcgtctt 480  
 nattttgccc atgtccccc gtgcancngg ttcnattngg tt 522

<210> 4032  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (54)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (93)  
 <223> n equals a,t,g, or c

3663

<220>  
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<222> (98)  
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<220>  
<221> misc feature  
<222> (295)  
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<220>  
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<222> (308)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (328)  
<223> n equals a,t,g, or c

<220>  
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<222> (330)  
<223> n equals a,t,g, or c

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cacccttgcc ctctgcagac tgggggttctg tanaccnca aagtaagtc gccacaccgg 120  
aaggaagtga gttacacagg ggcccacatg ggaaccgctt tttgtcctgt cttggtggga 180  
aaatggccac gaccccagcc caggctctgc cagccacaaa ctccacgggc atagcctgtg 240  
aggccgcagc gtgaactgtg actagggctg aggatggtgc catggtaaaa gtganggcct 300  
ggcaccnngt caantgcatg aattcttngn agtgggggttg ggaaaaacac ct 352

<210> 4033  
<211> 132  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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3664

<222> (66)  
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<220>  
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<223> n equals a,t,g, or c

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<222> (78)  
<223> n equals a,t,g, or c

<220>  
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<222> (80)  
<223> n equals a,t,g, or c

<400> 4033  
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gtgacngncg gtgctgcngn ctaacacaca cctaatagaca gacaccaaca gccatacgct 120  
tggggagcccc gg 132

<210> 4034  
<211> 275  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

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<220>  
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<222> (79)

3665

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (103)

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<221> misc feature

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<220>

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<222> (225)

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<220>

<221> misc feature

<222> (243)

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<220>

<221> misc feature

<222> (269)

<223> n equals a,t,g, or c

<400> 4034

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gcggtccgaaa gatagcaang ataatagcgg tggagaccca ccngcacaaa tgcacccaag 120
agacaagcca ttacataca gatattnaca gtcacacata gaaacaccca catggacaca 180
aggaatgttg ctgcanagac tgaatgacat gcaacangtg aaggnttata cgggtatacac 240
aangccaggt aagcgctcat aaatcacana caata 275
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<210> 4035

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

3666

<222> (4)  
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<220>  
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<222> (5)  
<223> n equals a,t,g, or c

<220>  
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<222> (6)  
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<220>  
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<220>  
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<222> (200)  
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<220>  
<221> misc feature  
<222> (212)  
<223> n equals a,t,g, or c

<220>  
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<222> (242)  
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<400> 4035  
gaannntcnt cggaanacc cctactatag gtaacgctgg tacgcctgca ggtaccggtc 60  
cggaattccc gggtcgaccc acgcgttcgc ttattgattc cagaccatt tcagcagact 120

## 3667

gtgacacttc agcgacctgc aaattctaca cattagagtn catatTTTTat acaaactncg 180  
tacacctaag atgtggactn aacatttcta cnaacaacat ccaacttcaa caaaagatgc 240  
ang 243

<210> 4036

<211> 251

<212> DNA

<213> Homo sapiens

<220>

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<222> (6)

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<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

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<222> (173)

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<220>

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<222> (183)

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<220>

<221> misc feature

<222> (244)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (245)

<223> n equals a,t,g, or c

<400> 4036

gcttanttag tctggctcaa gtactttggt tacaatnaaa atggatatta tagcatttaa 60

## 3668

tagaagaaat ggntatggct tatccaaaaa gaatgtcagc atgacctggt gtagacttaa 120  
aaaactacat gtttgtgaat attttataat gtggaatgat cattgaaata ttnaggattn 180  
tangtaattg tatttcctga ataaacgtat gttcatgaat tttctaactt acatcttgta 240  
gtgnnctctg c 251

<210> 4037

<211> 175

<212> DNA

<213> Homo sapiens

<220>

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<222> (10)

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<222> (101)

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<222> (107)

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<220>

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<222> (132)

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<220>

3669

<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
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<222> (146)  
<223> n equals a,t,g, or c

<400> 4037  
ttggaaanan cncactatan ggtaagctg gtacgcctgc aggtaccggt ccggaattnc 60  
cgggtcgacc cacgcgttcc gcgaccgacc ttcagcaggg ntgaggntac catgttctct 120  
cgcgcgggta gncactgggc atgncnagtc tggacctttg cagagcgcaa atgga 175

<210> 4038  
<211> 293  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (7)  
<223> n equals a,t,g, or c

<220>  
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<222> (15)  
<223> n equals a,t,g, or c

<220>  
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<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (145)  
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<220>  
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3670

<222> (168)  
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<220>  
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<222> (184)  
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<220>  
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<220>  
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<222> (240)  
<223> n equals a,t,g, or c

<220>  
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<222> (248)  
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<220>  
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<222> (259)  
<223> n equals a,t,g, or c

<220>  
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<222> (288)  
<223> n equals a,t,g, or c

<400> 4038  
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gcattatattt ctccatttta taattttttac aggggggaaca gcgaagccag atgattttatt 120  
agttattgcc ggtganaata caganatcct ttgaaacatt tgtctctnct agaattctca 180  
tcanaccata tgcttctaac acagcactta acagtcattg ggagtatgtg ggantaacan 240  
atactcgnnt ccctgccana accacacata caccacacaca cttgaaanaa aaa 293

<210> 4039  
<211> 87  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>

## 3671

<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (82)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<400> 4039  
gaattntaag aagacaatca agttttatta gaaacaaaaa ccatggttga agaccaacta 60  
gaggggaactc gtgccttata nnattna 87

<210> 4040  
<211> 59  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<400> 4040  
gnaaaaatn tn tgtgantaaa ttctctcttt gatcaataaa aaaaaaaaaag gggcggnncg 59



3672

<210> 4041  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<400> 4041  
aaaaaaatac gngggnaaaa agccccaant ttttgggggaa aaaaaccccc gcnccttggg 60  
aaacnttaat taaggggggcg ggaaaaaggc cctgggggggt gaac 104

<210> 4042  
<211> 413  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (275)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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## 3673

<222> (305)  
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<220>  
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<220>  
<221> misc feature  
<222> (363)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (381)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (392)  
<223> n equals a,t,g, or c

<220>  
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<222> (410)  
<223> n equals a,t,g, or c

<400> 4042  
gagcctgaat aaaaacagaa atggacacat aatatgcata ttccatagtc tttgggaggc 60  
tggaatgtgc ctgggatttg ggtctaagtg tatgcgtaat tcttacctca ctaaagaatt 120  
tgccttgttt ttttcctttt ggtgagtgac taaaacgtct gggcttccct gtgtgcgtgc 180  
tacagtaagc aagcagaggc tgtgcaaagg tgtgagcagg atcacgtgga atctggagga 240  
tacatcttgg cttgcaaact gcctctgtct cctgngtggg actgttctgt ccttgcaactg 300  
ctgnnctgtg gttacctctt ggggtgtaag gttttgctta canggaacat actttgggcg 360  
tanaatggat ccattgccaa ntctctgtgc tnagaaagaa aggtgcttcn gtt 413

<210> 4043  
<211> 112  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<222> (51)  
<223> n equals a,t,g, or c

3674

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (77)  
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<220>  
<221> misc feature  
<222> (92)  
<223> n equals a,t,g, or c

<400> 4043  
tttcaccaag gagctatacn tgggccaaga cccggatact tatccgtttt naccttgnac 60  
cctggaaatt gaatggnacg gaccctgatg antttcatta tgattgggca cg 112

<210> 4044  
<211> 55  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<400> 4044  
ggttgcacat gattgtntaa gcatgctttc tttagatgttt aaatgggggn ntagg 55

<210> 4045  
<211> 374  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (11)

3675

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (18)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (155)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (219)

<223> n equals a,t,g, or c

<220>

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<222> (220)

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<220>

<221> misc feature

<222> (262)

<223> n equals a,t,g, or c

<220>

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<222> (267)

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<220>

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<222> (270)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (271)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (282)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (290)

<223> n equals a,t,g, or c

3676

<220>  
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 <222> (312)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (321)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (372)  
 <223> n equals a,t,g, or c

<400> 4045  
 ggctcagaac naaagatnag caaaaaaagt cttcagggta ggactgccaa catataggac 60  
 tttgtaatgc catcttcttt atatttctgg gacattaaaa ttcaaattctc tgttgaaaat 120  
 gaaaaatgta aaacttagtt gcaaacagta taganaataa gtgatgatga aatatttggt 180  
 ttcatacaaaa catgctttcc cattctaaat agatgctann tttctttttt ccttggctgt 240  
 aaataaaaagt gcccctaatg anaaacnaan naaaagggcg gncgctctan aggatccaag 300  
 cttacgtacg cngtgcacatg nacgtcatag ctcttctata ggtgtccacc taaattcaat 360  
 tcactgggcc gntc 374

<210> 4046  
 <211> 53  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (22)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (39)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (45)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (52)  
 <223> n equals a,t,g, or c

<400> 4046

## 3677

gggggaagtt ggaaaaaat gntattttta aattatggng cccntaaca tng 53

<210> 4047

<211> 403

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (243)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (323)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (394)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (396)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (401)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (403)

<223> n equals a,t,g, or c

<400> 4047

gganaatttc acattaatat ttgctgacag ctgacctttg tcattcttct tctattttat 60  
 tccctttcac aaaattttat tcctatatag tttattgaca ataatttcag gttttgtaaa 120  
 gatgccgggt tttatatattt tatagacaaa taataagcaa agggagcact gggttgactt 180  
 tcagggtacta aataacctcaa cctatgggtat aatgggtgac tgggtttctc tgtatagtac 240  
 tgnctatggta cggagatggt tcacgaagtt tgttcatcag actcctgtgc aactttccca 300  
 atgtggccta aaaatgcaac ttntttttat tttcttttgt aaatgtttag gtttttttgt 360  
 atagtaaaag tgataatttc tggaattaga aaanantcga ncn 403

3678

<210> 4048  
<211> 535  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (378)  
<223> n equals a,t,g, or c

<220>  
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<222> (447)  
<223> n equals a,t,g, or c

<220>  
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<222> (481)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (499)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (514)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (516)  
<223> n equals a,t,g, or c

<400> 4048  
gntctgntgg aaagggccag gcactcagaa gtatcccatg cttgaaattc ttaattttat 60  
ctttgaattht gtgtttttta agtgaagtcc aatgggacag gttctcagtt gccctggccc 120  
actcgagctg ccctggggct tctccctacc ctccctgatc ccactcttgc ccaggcagcg 180  
ttgggattgc accctccgaa tctcagggca ggggtggctgg taccacagca cattaggcag 240  
gcaagtgggc aggggcctct cacctgtccc atccctgcag ggaagttgca atccattagg 300

## 3679

gctgtagtaa cggggagtct gacttctgtg ctctgctcca ggccgggaat tttgcactgg 360  
gccttgtaaa tcatgtanat ggcacagggt gatgagtacc attattatcc ctattttata 420  
aagagagtat taaagagaag taacttnacc aactgcaaaa atgtctatac atatatccca 480  
natggattta aaaaactang cccggccatg ggtngnctca aacctggaaa tccca 535

<210> 4049  
<211> 123  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<400> 4049  
cgnncaccg ggccggaatt cccgggtcga cccacgcgc cggaaaaaaaa aaacattctg 60  
cgaatgaaat atngnatggg gagaggttat aaaagacatt ngnaaaagcc caatttacag 120  
ccg 123

<210> 4050



3680

<211> 252  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (197)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (205)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (249)  
<223> n equals a,t,g, or c

<400> 4050  
gaaatgcttt ctaactgggc ccccaactcc gcacccagc tcgcagtgag gccctgggtg 60  
ggtcacctgc cctctctgga cttgtttctt caactggagg aggtccctgc ctatgctgac 120  
attccattgt agaaaaatgg ggcctctggt gtctctttac caggggcaag tgcctctctg 180  
cgggggagga aaagctnaag gttanctgtc ttaacccaan tgacttacca ggcctacnaa 240  
atgagtcant tc 252

<210> 4051  
<211> 282  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

3681

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (205)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (214)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (237)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (246)  
<223> n equals a,t,g, or c

<400> 4051  
gcacaaaact gattttaaaa tcaagttaat gtgaattttg aaaattacta cttaatccta 60  
attcacata acaatggcat taaggtttga cttgagttgg ntcttagtat tattnatggt 120  
anataggctn ttaccacttg caaataactg gccacatcat taatgactga cttcccagta 180  
aggctctcta aggggtaagt ctgangatcc acangatttg agatgctaag gcccacanaga 240  
tcgttngatc caaccctctt attttcagag gggaaaatgg gg 282

<210> 4052  
<211> 143  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

3682

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (100)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (105)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (120)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (127)  
<223> n equals a,t,g, or c

<400> 4052  
gatgccact cactttaggg aaagctngta cgcctgcagg taccgggtccg gaattcccgg 60  
gtttgaccca cgnnttcggc aaagcaaccc cctgcttatn cacgnggaca ccaaggcggn 120  
ccacggngcg gggaagccca cag 143

<210> 4053  
<211> 131  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

3683

<220>  
<221> misc feature  
<222> (125)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (129)  
<223> n equals a,t,g, or c

<400> 4053  
accactact atttgnaag ctggcccgcc tgcaggtacc ggtccggaat tcccgggtcg 60  
accacgcgt ttgctgagat gagggcttta gcctacaggg ntttttgaaa tgaaaggagc 120  
tnagntannt a 131

<210> 4054  
<211> 400  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (373)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (394)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (397)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (398)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (399)  
<223> n equals a,t,g, or c

<400> 4054

## 3684

gcaacttaga agaaatcatt tagtgactta attctttcta aagatgaaat gggattgttt 60  
tttactcgtc ttcttgtta aatcattatt taagccgttc ttattgacca attcctgaca 120  
cttgattgtc tctaatgct ttatccatca ccacctgggc tctgcatcc tcaactgtgga 180  
atcaggcacc agccacataa tgttccagac aaagcctgga aggggtgtgga cccagacgtg 240  
gagtggagtg attctcttga cgtttacata tatctctgtg tctctccatc attccaaagc 300  
taaagtaca tgtttagaat aacttatttt ataaactctt cgggagacat gttgagattt 360  
gaccgtaatg aangcccatt ttctgaaaa aaanaannnt 400

<210> 4055

<211> 156

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (81)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (91)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (106)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (134)

3685

<223> n equals a,t,g, or c

<400> 4055

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ggccnaccaa ccggttttgg ttggcncggc ccggcttggt ggggcctctt aaaggngccc 60
ttaacccaac cccttttcaa ngaaaagtgc naaccctggt ggggcnaana tggttggggc 120
ttacccttg gccnaatgcc gccaatgaag aaaagg 156
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<210> 4056

<211> 374

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (237)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (266)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (299)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (309)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (317)

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<220>

<221> misc feature

<222> (360)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (370)

<223> n equals a,t,g, or c

<400> 4056

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gggacctgga gccatcccg ggagccttgg acgctgtgcg ggagatgaac gacctaccgg 60
agtaaggaga gagggggcg ggcggagtcc tgggcgggct cctggctccc ggcggtaacc 120
gcgtccttct ccgcagcac caggtcttca tctgcaccag cccctgctg aagtaccacc 180
```

## 3686

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actgtgtggg tgagaagtac cgctgggtgg agcagcacct ggggccccag ttcgtanaac 240
gaattatcct gacaagggac aagacngtgg tcttggggga cctgctcatt gatgacaang 300
acacagttnng aggccangag gatgacccca agctggggagc acatcttgtt tacctgctgn 360
cacaatcggn acct 374

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<210> 4057

<211> 193

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (90)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (113)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (154)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (168)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (173)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (180)

<223> n equals a,t,g, or c

<400> 4057

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ggacgcgtgg gcggccgtga agtagcgttg gatgcgtgtg cctgtgtgtg tctgggggtgg 60
gggtgagggg cgcgccgggc cgcgtgctcn agtagaaggg gccggagggc ggnagacggg 120
tcggcgtggg catcctggac cctgggggct ggcngggcgg cgtgtgcngt ctnggagggg 180
ccgaggcggg gga 193

```

<210> 4058

<211> 345

<212> DNA

<213> Homo sapiens

3687

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (141)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (143)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (182)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (222)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (227)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (236)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (257)  
<223> n equals a,t,g, or c

<220>



3688

<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (274)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (283)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (344)  
<223> n equals a,t,g, or c

<400> 4058  
gattttctgga atggattttaa taggctgtgt ctaatgtaca aactgggtga gtcctgcctt 60  
antgtgtcct gccccaccgg tacgcttcca ggatactntt ttccccctctg taaagatcac 120  
tttcttctga tggccagtgt nantatgatg tcagtnaggt ctgggggatga tgacagtggg 180  
tnctgaaatt cacaggactg actcctcacc ccagtgcacg angattnctg tggcangacg 240  
gtgtgtctgt acctggngta ggancctaata catngaacca tcngctgtta cctcacatct 300  
ctatgtctaca gaacatatca tgtctcaaga aggatttggg ggang 345

<210> 4059  
<211> 397  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (263)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (301)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (361)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (383)  
<223> n equals a,t,g, or c

3689

<220>  
<221> misc feature  
<222> (387)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (389)  
<223> n equals a,t,g, or c

<400> 4059  
ggtgagtatt aaatatttca gaagtgtgaa tttcatgtat ttgagctcct ctagttgctg 60  
tcggtttttc ttctgctgcc aacctgtgac tcacaaatga ctaggatctc ttgttcttta 120  
attttagggg cttgttccag gactcaaadc agtaacttgg tgattacaag gtgctgaatg 180  
tgttggtaac catatcgcaa tacacctcaa ggaaaagggt cagattttta tttttaaata 240  
attttcattt ttttcttgaa ttntatatcc gtttggtcac tcgtacatgc ctagecctaca 300  
naaggggata tatattatga aatgggcatt tttctgaaga gaatattttg cttgaaatgc 360  
naaggactga aagagatttg tangtngnt gattttg 397

<210> 4060  
<211> 193  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (176)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (182)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>

3690

<221> misc feature  
<222> (193)  
<223> n equals a,t,g, or c

<400> 4060  
ttcggctgcc tgtacacctg ctgcctacat cttcttggca acaaagttac ctgccacagg 60  
ctctgctgan cctatgtcct ggtcagtaat aactgaacag ttgcattctt ggctttggat 120  
gctgtctgcg gacaatcttg ctgaggatct ctaccatatt ctgagcacac ggtntntttt 180  
gntctaactt nan 193

<210> 4061  
<211> 316  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (175)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (192)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (255)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (266)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (271)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (283)  
<223> n equals a,t,g, or c

<220>

3691

&lt;221&gt; misc feature

&lt;222&gt; (294)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4061

```
gattggcaca tgggtggaca cggatctgct gggctctgcc ttaaacacac attgcagctt 60
caacttttct ctttagtggt ctgtttgaaa ctaatactta ccgagtcaga ctttgtgttc 120
atttcatttc agggctcttg ctgcctgtgg gcttncccag gtggcctgta ggtgngcaaa 180
gggaagtaac anacacacga tgttgtcaag gatggttttg ggactagagg ctcagttggt 240
gggagagatc cctgnagaac ccaccnacca naacgtgggt tgnctgaggc tgnactgag 300
agaaagattc tggggc 316
```

&lt;210&gt; 4062

&lt;211&gt; 103

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (53)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (57)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (65)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (81)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (83)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4062

```
gggaaaaaag ggccttgggg tttatccgtc tccttggcca aggggggttaa tcnccgnggt 60
tctcnggggg aaaatatttc ncncggggg ggttctgtat etc 103
```

&lt;210&gt; 4063

&lt;211&gt; 158

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3692

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (99)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (127)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (145)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<400> 4063  
aatggcaaca cacaggaact ttgattagga aaacttgggc caggcacagg cagaagtcac 60  
ttttcattca tccttgccaa cgtgtganct tcagaagant ggaaatgatg gactatcaac 120  
accttcngcc tacgactcaa ataanaantt gatgactt 158

<210> 4064  
<211> 74  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>

## 3693

<221> misc feature  
<222> (63)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

<400> 4064  
ttttgggaaa aagccccccn ntttttgggg ggaaaaaaat ccccnnggaac ttgcaaact 60  
ganttttttg nggg 74

<210> 4065  
<211> 104  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<400> 4065  
gctagaggag tttgtatcaa tttgtgagta ttaatgtcan gtnctaccag cactttgccca 60  
aaactgtcan agggaccctg ttctanagtg agtcccantt acat 104

<210> 4066  
<211> 70  
<212> DNA  
<213> Homo sapiens

3694

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<400> 4066  
gctcaagggtc tcctccttcc ctcccccccc ccccccgtea tatcttttnt tngttttttt 60  
aaanttagga 70

<210> 4067  
<211> 53  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (31)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<400> 4067  
gcgggtttctg gntccgacgg tagtgggtag nggntctcgg gttgcggggtt gca 53

<210> 4068  
<211> 202  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (3)

3695

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (18)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (42)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (158)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (166)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (174)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (181)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (202)

<223> n equals a,t,g, or c

<400> 4068

ccngtgaaat tanngctntt ggggacatga aatatatgga gngataaatt atagaacaca 60  
gtattccaag aataaagtac tcttgagggt ccttcctgat tcaccctggg gtacacacag 120  
gtgcatactc cctgcctctc acccatccag agaaaaacnct ttgcantgac tcangtccaa 180



## 3696

nagcactgct cttgggtgga an

202

&lt;210&gt; 4069

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (284)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (324)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (330)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (345)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (347)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4069

```

ggtttatgga tttttaaaag tctcattagc aatgatttct gagttttaaa caatttgtgt 60
gtatgaatga acttccggca tttgggaaac ttaatctgct ccatggatat aattgtaatt 120
gttttacatg ggaatttaat acaaacctaa caatcaaadc cctctcatta aattttacat 180
tcattcacta taaatggact agatttttaa actcagaaac ctaaaaataa gatgaagtta 240
gacaacttta gattttgtgt ggtgtgtaca tctatgtgca cagnatgtaa attatctttt 300
attggattgc ttaatagaat aaanaagtan aaatttaatt cctgngng 348

```

&lt;210&gt; 4070

&lt;211&gt; 115

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

3697

<221> misc feature  
<222> (71)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (97)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (111)  
<223> n equals a,t,g, or c

<400> 4070  
agagnccaaa aaggccacgg gataaacgga caccgcagaa gagataaaca cagagatata 60  
cagggaaaaa natanacaca gagagatata gaacncncaa ccggcagata nacag 115

<210> 4071  
<211> 52  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)

3698

<223> n equals a,t,g, or c

<400> 4071

gatggaagta atttagattt ggaanantca tacataaaat gattntagtn ca 52

<210> 4072

<211> 89

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (78)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (83)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<400> 4072

gctcttcctc tcaggcgggc agggcttggg cagcggcctg agtctcagcg gacttgncga 60

ccctcgagtt gaatcggntt gnngagcng 89

<210> 4073

<211> 100

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (28)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3699

<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (78)  
<223> n equals a,t,g, or c

<400> 4073  
gcaggtaccg gtccggaatt cccgggtnga cccacgcgtc cgnaaaagct tcgagctggt 60  
gcgggngtga gtntgttntg ttgatgacca atggggaaaa 100

<210> 4074  
<211> 52  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

## 3700

<400> 4074  
gggtgttgctt ttacggncan agctgactnt gttgaggntg angttaaaag tg 52

<210> 4075  
<211> 256  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (179)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (183)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (227)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3701

<222> (234)

<223> n equals a,t,g, or c

<400> 4075

```
cctacaaacn ccatggtaat ncnactacaa cagggaaagc tggtagcct gcaggtagcg 60
gtccggaatt cccgggtcga cccacgcgtc cgctcccca atgcaggcca cttctcctcc 120
ctcctctcta aatgtantcc cctctcctcc atctaaaggc aacattcctt acccattant 180
ctnagaaatt gtcttaagca acagcccca ntgctggctg ccccancca agcnttgggg 240
ccgccatcct gcctgg                                     256
```

<210> 4076

<211> 171

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (40)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (50)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (119)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (123)

<223> n equals a,t,g, or c

<220>

## 3702

<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (150)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<400> 4076  
cttcaggagg aagcacatctt aaatcatctt tcaagcactn tattttttttn gtncannaat 60  
tcaaccttat tgatagaaga gaacttgcac cactccaaga actgattgaa aaactcacnt 120  
canaagacag ataaaaggat gcanagcttn tgcaaattgg tcctnaaatg a 171

<210> 4077  
<211> 331  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3703

<222> (169)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (197)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (272)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (279)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (283)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (310)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (315)  
<223> n equals a,t,g, or c

<400> 4077  
ggtcagncaa nngagtcaag atttaagttt acaagaggct gaaactgagc aatcagatac 60  
tttagataat aaagaagctg tcatcctaan ggaaaaacct ccatctggac gccagacacc 120  
gcagccttta aggcatcant cttacatctt ggcagtaaat gaccaggana ccangtcaga 180  
cactacctgc tggctgncca atgatgcacg tcagagggtcc acataataag aatggaggaa 240  
agaaaagcct cgagtccaat cccgctggcg antctttgnc ttncatccca tttatagagt 300  
cctctgatgn ccagnctgga gtgcaattgg c 331

<210> 4078  
<211> 152  
<212> DNA  
<213> Homo sapiens



3704

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (135)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (146)  
<223> n equals a,t,g, or c

<400> 4078

## 3705

aggganaagn tggnacgcn gcaggtaccg gtccggaatt ccngggtcga cccacgcgtc 60  
cggaggagcc gggctgatgc ggggctgctc agggcaggcc cnagggcgag ctngccatng 120  
aggccaggca gctncacct gtgctncagt gg 152

<210> 4079  
<211> 166  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3706

<222> (165)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (166)  
<223> n equals a,t,g, or c

<400> 4079  
gatgnccant tgggncngaa ttccnggggtc gaccacgcg tccggtactc cctaaatttt 60  
ttaaaataca tataaatgct tgacattatt atacatgtaa gtggaataga aatagaaaca 120  
gaaaataaat gcttcaaggt gttttacacc ntgaaaaaan aantnn 166

<210> 4080  
<211> 100  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (74)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (88)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (93)  
<223> n equals a,t,g, or c

<400> 4080  
ccgtaccggt ccggaattcc cgggtcgcacc cacgcgtccg ggatatctng ggggccatta 60  
gncagcctgc tatnaccatc agtcagcngg atntaatcaa 100

<210> 4081  
<211> 136  
<212> DNA  
<213> Homo sapiens

3707

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<400> 4081  
tgactgnaat gaaaagaacg nggccttttt gcaacgcttg aacctgagat caaggntgtc 60  
attgagcanc ttnaacctgg gcaccaccct gggttgcaac ttgcaaaaaa ccttcggatt 120  
tggggggatgg gnnacc 136

<210> 4082  
<211> 277  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

3708

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>

## 3709

<221> misc feature  
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<220>  
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<222> (223)  
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<220>  
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<222> (240)  
<223> n equals a,t,g, or c

<400> 4082  
ggancttgta ctggnnggtc tccctgencg tactcggnc c ggaattccc ggtcgaccca 60  
cgcgtccgaa gaagcgaaat tttattctgg atcagacaaa tgtgtctgct tgcttgccca 120  
gaaggagaaa aatgngcctg tnttcaggct ttccnncgaa aacttggttg aagttggcca 180  
aaagatgaag actattgcna aagacccagn ataaacntaa ttnaaggga agactaccan 240  
acatgcggtc ttaaaatgaa aggaactttc ctccaaa 277

<210> 4083  
<211> 415  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (24)  
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<220>  
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<220>  
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## 3710

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<220>  
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<222> (346)  
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<220>  
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<220>  
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<222> (407)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (415)  
<223> n equals a,t,g, or c

<400> 4083  
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ggtccggaat tcccgggtcg acccacgcgt ccgcaaatta ttagtgtata actctgaatt 120  
gaatttagat ctctttgatt ccaaggcttg ggatcttaca tgccccctta ttaggttagga 180  
atagatactt catgaagatg ataacatgcc atctacagaa tatgatatgg cattgatgtg 240  
acactttacc taaaaaatat cttatttctg agtcttccgc aagagaaaaa gcaattttat 300  
ttttatggga caagattgga tgntacattt ttaatcaatt acatgnaagt gtattctacc 360  
tttaaaattg ctatggaaaa gtttaattat ttccaacagg anttatnact atcan 415

<210> 4084  
<211> 303  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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## 3711

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<220>  
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<220>  
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<220>  
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<220>  
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 <222> (298)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (302)  
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 ccgggtcgac ccacgcgtcc ggccccgcag ctctccggg agcccgctgg taactcgcgt 120  
 cctcgcgct tctccggcgc ctgaggggcc cgctcgggc catggtgctc tcccaggagg 180  
 agccggactc cgcgcggggc acgagcgagg cgcagccgct cggccccgcg cccacggggg 240  
 ccgctccgcc gccggggccg ggaccctcgg acagccccga ggcggctgnc nagaangngg 300  
 ang 303

<210> 4085  
 <211> 122  
 <212> DNA  
 <213> Homo sapiens



3712

<220>  
<221> misc feature  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (115)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<400> 4085  
gnaaaagttct tatgntagta tacatataaaa tatcagtgtt ctgacatgta agaaaaatgnt 60  
acgggtatcac acttatattt tatgaacatt gnactgggtgc tntaatatga gcttnantat 120  
aa 122

<210> 4086  
<211> 148  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (15)  
<223> n equals a,t,g, or c

<220>

3713

<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (26)  
<223> n equals a,t,g, or c

<220>  
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<222> (74)  
<223> n equals a,t,g, or c

<220>  
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<222> (94)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<400> 4086  
catgcagaga atatnctgaa gaantnaagc gtgactgctg gcgaactgtg acacgggtga 60  
gctcgatcac atcncctctca tacatcattc attnaagcat ttcttttagcc cacgggatcca 120  
gacccaantg cntgtatgt gnagatac 148

<210> 4087  
<211> 177  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature

3714

<222> (50)  
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<220>  
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<222> (61)  
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<220>  
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<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (96)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<220>  
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<222> (152)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (159)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<400> 4087  
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nttaacaagn tacagataat cgctgactgg catgtngtct gcttctagct tggagctaaa 120  
tgctgctcat gctgaaaaga ataatgncta tntctttgmn tgggtattag ctctatt 177

<210> 4088  
<211> 317  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (10)

## 3715

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (103)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (293)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (294)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (305)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (317)

<223> n equals a,t,g, or c

<400> 4088

tcactatatn tgagggcang gncnctgca ggtaccggtc cggaattccc gggtcgaccc 60  
acgcgtccgg anttaggtct attaggataa ttaggagttt gancccatca acactattct 120  
tgtagcagtt aggaatcttg agctatTTTT ttctcatagc attactatag tccagttttac 180

## 3716

caaagttttc tttagatgtc tgataatctt gagatgattg cttaccttaa aaggtataga 240  
aaggatcact taaatatatg gaaaaatgaa ataagggtga agctgaataa agnnctactt 300  
actgnattaa aaaaaan 317

<210> 4089

<211> 548

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (39)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (327)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (375)

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<220>

<221> misc feature

<222> (392)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (415)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (477)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (478)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3717

&lt;222&gt; (510)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (519)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (547)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4089

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nagttcactg aaaacttttta ctatatattga ggcgtggtnc cctgcaggta ccggtccgga 60
attccccgggt cgacccacgc gtccgatggt gtcatttttc ctgcagagaa atttaattctt 120
tcaactttaat ctttcattgg cctatagcag ccagtgggggt cttttaaaaa attcttttcc 180
ttcatattcc ccgtttgagc ttaagggtaca aaaaaagaaa atactcttga aatgctgtga 240
ccagatctag actgtaacat gccccttcgc tcctctggtg aggaagtgcg ggaagggtgga 300
agacattgag gggttgatta ttactncgt ttggaagtaa gaagggaggt agctcttatt 360
tggaataaga gctgncttca gaacagggtgt gngctctcct gaagcccaga gctgngactc 420
cctgggtgtg tctcttacct gtgcccttgg gcaagtggca cgggagaaga atacgannag 480
aggaggatgg tacagacaga ggagtcacan gctgaacang ctgtcaccgg ggcaagatga 540
ctgacang                                     548

```

&lt;210&gt; 4090

&lt;211&gt; 51

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (43)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (45)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (46)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4090

## 3718

gctcaaggtc tctctcttcc ctcccccccc ccccccgtea ttnanntgnc c

51

<210> 4091

<211> 402

<212> DNA

<213> Homo sapiens

<220>

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<222> (5)

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<220>

<221> misc feature

<222> (331)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (370)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (375)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (381)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (402)

<223> n equals a,t,g, or c

<400> 4091

gattntcgcc agggccaata cttatccgca ggggtgtgtg ccaggcagcc caggtcagcc 60  
 tccctccacc gggccacccg caccagggtg cctcccatcg tttgcaggag cggaagaccc 120  
 gatggagcag gtttcacagt gccctcgctg ctgcctcccg tttcatctgc acgtctcttt 180  
 caatgcgggc gtgcgaactt ccaggtagag ccgagttcaa gaaaatgaag tactgcatgc 240  
 gacgagcaag tttattgaag aggggtgtgag gtcgcggcgc ctgaccctca ttatgtcaag 300  
 ttactactaa atgaaattag aacttcactg ncctttttct ttttcccatc gaggtgcaag 360  
 aggaattgan cttanggtag nattttgga tttaaaaaaa an 402

<210> 4092

<211> 214

<212> DNA

<213> Homo sapiens

## 3719

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<220>  
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<222> (36)  
<223> n equals a,t,g, or c

<220>  
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<222> (93)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (177)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (183)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (195)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (208)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<400> 4092  
gnctgggttca caggggaatct agttactata ttgaangctg gtaccctctgc aggtaccggt 60  
ccggaattcc cgggtcgcacc cacgcgtccg aangactaca gagccccgaa ttaataccaa 120  
tagaagggggc aatggctttt aaaataaaaa tgaaagggga attaaaacag cttaaangtt 180  
aanttaaaaa gtggnagggg aataaaaanaa nttg 214

<210> 4093  
<211> 98  
<212> DNA  
<213> Homo sapiens



## 3720

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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<400> 4093  
agaggggatnc tggaaaccct ttcgggantn aaggccaggt acccctgcag gtacnccggtc 60  
cggaattcnc gggtcgaccc acgcgttcgc taatccag 98

<210> 4094  
<211> 146  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
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<222> (36)  
<223> n equals a,t,g, or c

<220>  
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3721

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<220>  
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<222> (113)  
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<220>  
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<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (126)  
<223> n equals a,t,g, or c

<220>  
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<222> (138)  
<223> n equals a,t,g, or c

<400> 4094  
agacanaagt ggaattncgg aactacattg aaagcnggta cccctgcagg taccggtccg 60  
gaattcccgg gtcgaccac gcgtccggtg gcatggggga aaatcgagtg ggnccaggng 120  
ggcaancgaa gcaaggcntt ggcgtc 146

<210> 4095  
<211> 279  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (258)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (259)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (263)

3722

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (272)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (274)

<223> n equals a,t,g, or c

<400> 4095

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tgtatctttg taaaaaaaaa gatctttata aacaatatat gaatgtgccg ncttatttat 60
tgattactgt aaattaagat ataaatggct atttgaataa tttataacctg tgggaattaa 120
ctggagtatt tgttatttga ctgttttcta ttaaggaata ttaggcttgg tgctatgatg 180
aatgatcttg taaaatcatg tgtattctta agaaaatttt tgaatataaa tttcttgaac 240
tgacaaaaaa caaaaaanna atntataaaa tnanaaaat 279
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<210> 4096

<211> 281

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (45)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (155)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (178)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (195)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (211)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3723

<222> (240)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (241)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (258)

<223> n equals a,t,g, or c

<400> 4096

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cgatatattt aaactttccc tctatattat aggttttgtg gcatncacgg tcaggtgtag 60
aggaagctgg ccccttgcag aactgtactg aaaaattttt aataaatatt ttcacaggac 120
tgaattgacc acaggggctt gtaataaaaa ttttnacact ggagctggga aaaccaanct 180
attgggggga aatcntccaa tttggaaagg nctacctttc atggggccac cctggaaaan 240
ntgggaagtg ggттаатnag cctaattgaa ctttttccta a 281
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<210> 4097

<211> 222

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (171)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (181)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (188)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (203)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (211)

<223> n equals a,t,g, or c

<400> 4097

## 3724

gogaccatct caatgtcacc aagaaatggt cctaatacctg agtcgtcacc cttggatttt 60  
atggatcacg gagctgacca tctttacctg gtcttggaac tgaaaaactg tagcttgtgt 120  
gaaaatgagc ctttggaaca gtctttatta aaacaaacaa acatgaaaaa naaaaaaaaa 180  
natctaanaa aaaaaaaaaa aaaaaaaaaa naaaaaaaaa aa 222

<210> 4098

<211> 235

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (123)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (183)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (209)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

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<221> misc feature

<222> (223)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (226)

<223> n equals a,t,g, or c

<400> 4098

## 3725

cgaatagacn tctntggaac gcctactata gggatgctgg tacgcctgca ggtaccggtc 60  
cggaattccc gggctcgaccc acgcgtccgc ggacgcgtgg gagaatatgg gataagtagt 120  
cangatcaga aaggtgagac aataaaaaaca agatatattc caaagcctaa tcctaaattc 180  
tgnttcaaatt tctttatcat atttcaagnn ctttctcata ctncantgat cttgg 235

<210> 4099

<211> 66

<212> DNA

<213> Homo sapiens

<220>

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<222> (9)

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<220>

<221> misc feature

<222> (43)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (50)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

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<220>

<221> misc feature

<222> (65)

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<400> 4099

gaaaaaaaana agagatagaa taaaagggtg aagacagaaa aancaagagn aanatgaatg 60  
taatnt 66

<210> 4100

<211> 454

<212> DNA

<213> Homo sapiens

<220>

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<220>

<221> misc feature

3726

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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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 gcaagcataa ggcaataaat acctgcagca acgtggggaga aagaagttgc tggaccagga 60  
 gaaaaggcag ttatgaagcc aattcatttt gaaggaagca caatttccac cttatttttt 120  
 gaactttggc agtttcaatg tctgtctctg ttgcttcggg gcataagctg atcaccgtct 180  
 agttgggaaa gtaaccctac agggtttgta gggacatgat cagcatcctg atttgaaccc 240  
 tgaaatgttg tgtanacacc ctctttgggt ccaatgaggt agttgggttg aantagcaag 300  
 atgttggnct tttctggatt tttttgccat gggttcttna cttgaccttg gacttttggc 360  
 atgattctta gtcatacttt gaacttggct cattccactn tttntcagag caactcttcc 420

3727

tttgggaaaa gagttnttca natcatanac cata

454

&lt;210&gt; 4101

&lt;211&gt; 66

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (16)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (27)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (57)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4101

gcccataacc atcttncatg agctganatc ccttcaaaat caagaggggg cgatgcntgg 60  
cagcta 66

&lt;210&gt; 4102

&lt;211&gt; 68

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (39)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (40)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (41)

&lt;223&gt; n equals a,t,g, or c



3728

<220>  
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<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<400> 4102  
ggatcatcac ctgtaaagca gagctatatt aagccaagnn ncaggaagca gtagaangct 60  
aatcttgn 68

<210> 4103  
<211> 349  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (54)  
<223> n equals a,t,g, or c

<400> 4103  
ggcctgaagc acattgtcaa agatgaaagc tcttttgggg aaaagggctc tccngtggaa 60  
tcatcccttg tcatagcatg tggctctaaa ttttcagcct cattcacagt agcttgcatt 120  
gttgatttgc ttttgggaca cctgtgtttt atctggaaat gtagacagga atagcggttt 180  
tttttgtatg tgtattatat attgtttcac tgctaattctt ctacacaatt ttttagaata 240  
aaaaagggta aatagcttgc gccattttgc taattacata gatttgactt ttgatcacat 300  
aaataaaaaa taaaacaagg caggacattg tcctgcacat agttgaaaa 349

<210> 4104  
<211> 227  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<222> (19)  
<223> n equals a,t,g, or c

<220>  
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<222> (43)  
<223> n equals a,t,g, or c

3729

<220>  
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<222> (65)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (72)  
<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (178)  
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<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (195)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

## 3730

<400> 4104  
gaacgctggg acgcengcng ggaccggtcc ggaattcccg ggncgaccca cgcgtccgat 60  
cgaangegcc gntgagacct cagccttgac ctccctcaga cgnggccggg accctgagcc 120  
nctgcnaaaa gccacccgcc ccgacgtact taggcgggnat agccctgaga cctctggnca 180  
gcgccaggca ngcancgggg gcgaaagagg cctgggnctg agacttc 227

<210> 4105

<211> 147

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (46)

<223> n equals a,t,g, or c

<220>

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<222> (127)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (135)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (136)

<223> n equals a,t,g, or c

3731

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (145)  
<223> n equals a,t,g, or c

<400> 4105  
ctncaggggcc cangttcgag accnaaaccc ccaggnagcc aaaacntctc ttgaaaagca 60  
cagggaccga ccaggggaga tggggaggag atatggagtg agacacctgc tccagaagaa 120  
gccagcnttc tctanncagg gngcnaa 147

<210> 4106  
<211> 190  
<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
<221> misc feature  
<222> (12)  
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<220>  
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<222> (13)  
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<222> (40)  
<223> n equals a,t,g, or c

<220>  
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<222> (43)  
<223> n equals a,t,g, or c

<220>  
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<222> (133)  
<223> n equals a,t,g, or c

<220>

3732

<221> misc feature  
<222> (138)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (175)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (180)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (189)  
<223> n equals a,t,g, or c

<400> 4106  
cgcccnagac cnncgtttgg aacgacctac tataggggaan gcnggtacgc ctgcaggtac 60  
cgggtccggaa ttcccggggtc gacccacgcg tccgaaaagt agccctcttt ctcctggatc 120  
ttgctgaggg agnggctngg ggggtggggg agataaaaaa gaacttaaaa tgggnaaagn 180  
aagaaatgnt 190

<210> 4107  
<211> 625  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (26)  
<223> n equals a,t,g, or c

<220>

3733

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<220>  
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<220>  
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<222> (349)  
<223> n equals a,t,g, or c

<220>  
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<222> (425)  
<223> n equals a,t,g, or c

<220>  
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<222> (504)  
<223> n equals a,t,g, or c

<220>  
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<222> (542)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (546)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (609)  
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<220>  
<221> misc feature  
<222> (619)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (622)  
<223> n equals a,t,g, or c

<400> 4107  
ctgtcnagctn tcgncatatag ttttgngctn gtaccctgc aggtaccggt ccggaattcc 60

## 3734

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cgggtcgacc cacgcgtccg gtctacaacc acgtaatatc cttttcatca gccttatgaa 120
attttcccc aatttatcca agtcaggatt tcagtatgca gaagtctaata gtcattcttg 180
agagttcatt gtgcctcccc catatccaag accatttact aaaaccttag ntcagtcttt 240
aaagagtcac aagatcctat tatgcctagt tttttttcca gtcttttaag tctattcctt 300
accttgccaa aaaagtacct gtttctatgg ttttaacaaat ggagcttana atatggaact 360
atgacaaaaa tacctgctac atgcttcctt ctgtatgaat acatgagacc taccttcatt 420
catgnttcct ctatgaagct ttccctgcac tccaaacaca gagctgagac ttccacctaa 480
tgtagaaagc tagcacgagc cggngctgac agatggaaga cttgagatgg tacaagatta 540
tntatnggaa acacaaaagg gagatacccg gagccatgac agactgggat ggggctgggg 600
ggacaggtna agcaagacnt tnata 625

```

<210> 4108

<211> 64

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (51)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (63)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (64)

<223> n equals a,t,g, or c

<400> 4108

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ggttctagat cgcgagtggc cgcccttttt ttttgggnntt tttttttctt nancataaaa 60
cgnn 64

```

<210> 4109

<211> 56

<212> DNA

<213> Homo sapiens

<220>

3735

<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
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<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
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<222> (49)  
<223> n equals a,t,g, or c

<400> 4109  
gctcaagggtc tctctcttcc ctcccccccc ccncccggna tgtttnngng atataa 56

<210> 4110  
<211> 502  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (304)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (426)  
<223> n equals a,t,g, or c



3736

<220>  
 <221> misc feature  
 <222> (430)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (453)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (468)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (498)  
 <223> n equals a,t,g, or c

<400> 4110  
 gtgttagaag gacccaaggg gaatgggttg aaggcatgtc atagaaggag aagataaaga 60  
 aagcccagat gattttttgcc tgtagaagag gagggctgat gggattcaac tgcctaagtt 120  
 tgtatctaaa tcttggttta tggaattgag gttacatttt gtttgatgg ctcttaagaa 180  
 cagaattcag atttctgcct ttgaaaaagg ggaaaccctt taccaattan gattattaaa 240  
 aaatggaatt tctctgcatt ttgagatagt aaactctaca ttgaagtatt ctgctacttg 300  
 ttanaaattt tgntcaaaac tttaagcatt aaatggggaa ttggtctgga tgactgttaa 360  
 gatccccaag agaatccaaa tttttgatct tagctgcaat taaagatggt tataaatgct 420  
 taacanctgn tctacctact tccttattct tangatgtat tactattnca tatttaaacg 480  
 atcactcaag gaccattnaa tc 502

<210> 4111  
 <211> 139  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> (47)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (58)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (71)  
 <223> n equals a,t,g, or c

3737

<220>  
<221> misc feature  
<222> (90)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<400> 4111  
gctcaagggtc tcctccttcc ctcccccccc tcccccgctct gggcttnact tcctttcnta 60  
cttggattct nctgctagct gcctcccatn atctttttttg gagggccgctc tcttgctgtg 120  
gggaagantg ggctggctg 139

<210> 4112  
<211> 377  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
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<222> (31)  
<223> n equals a,t,g, or c

<220>  
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<222> (131)  
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<220>  
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<222> (136)  
<223> n equals a,t,g, or c

<220>  
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<222> (141)  
<223> n equals a,t,g, or c

## 3738

<220>  
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<220>  
<221> misc feature  
<222> (162)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

<220>  
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<222> (329)  
<223> n equals a,t,g, or c

<220>  
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<222> (331)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (369)  
<223> n equals a,t,g, or c

<220>  
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<222> (373)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (376)  
<223> n equals a,t,g, or c

<400> 4112  
gtaaccttag tangatagaa cttcatntgg nagggccagc tggtagcct gcaggtaccg 60  
gtccggaatt cccgggtcga cccacgcgtc cgtttgaatt tttgagttat caatgtactg 120  
aagtctcttt ntaatnttat ngggtggttc agtgnnggtca gngccttgag tgtttcaaga 180  
tctctattct ggatttttagt ttagctttta ttgactntct aggttgtggc cattgcctga 240  
aatacatgac agtgagctca cagaaacctt atactttgaa tttcacaaaa atcatataat 300  
gttaggttct tgcttgcttt ccctttatnt nttttactgt caataaaata ctgatcctga 360  
aaaaaaaaana aanaana 377

<210> 4113  
<211> 530

3739

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (13)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (281)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (385)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (398)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (447)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (468)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (469)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (484)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (491)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4113

cgattaactg ccnatcatca cctcatttgc tttttttgac aacatactac tagaaaccta 60

ggctgtgagt gtaaaacat aactgttaga atcatttttt tggcaatagc tcacattctg 120

## 3740

```
ttaagagtca tttgcttttaa tcaaagatca tgatttatta tatatTTTTT ataagtaggg 180
atggggccaa gattattcct ttggcacagc agtaagtgtg ctcaagatct ttgcctgtaa 240
gcttgaatat ttggcttaaa ttttgtgcat atgaatactg ntaaagggtat atttgactac 300
atTTTgaaag gaaaaaggta gtCctgctaa aattgacatt tagggatatt ttaatctatg 360
tatttggtaa aggttaattag tgaangtatt aagttatnaa aattTTTaagg gaaaacattt 420
aaaaagcaaa atagtccgta tcagatnaat agaggtagaa taccactnna gattaaacaa 480
ggcncTggta ncaatgaagg ttgtcttggt cagacgactg agatatttaa 530
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<210> 4114

<211> 68

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (44)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (62)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (65)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<400> 4114

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ggaaaagaga aagagaaaag gaattaattc aatcctggca gaantgattt atatnctgat 60
tngancna 68
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<210> 4115

<211> 211

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

3741

<220>  
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<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (167)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (193)  
<223> n equals a,t,g, or c

<400> 4115  
cgcggtgggt accggtnccg aatggccggg aagaccang cgtacgaaaa aaattatctg 60  
ggttaataag ganatntata aaaggcncaa gaatctgagg actagatgtc ataaatatga 120  
aataggtaaa aacaagggtca cnagaaaatg ggtanttaag aacttanctg gtgnggtaag 180  
aagcatcacag aantggaaag gtaagaactt g 211

3742

<210> 4116  
<211> 101  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (14)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (21)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (82)  
<223> n equals a,t,g, or c

<400> 4116  
aaaagaaaaa cntnaaataa ntgacttgat ttacacaaac atccttcctt tttctacaag 60  
ttaattnttt tacaaatcat tngggatata tcctaaatag g 101

<210> 4117  
<211> 440  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (22)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>

3743

<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<220>  
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<222> (98)  
<223> n equals a,t,g, or c

<220>  
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<222> (106)  
<223> n equals a,t,g, or c

<220>  
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<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
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<222> (271)  
<223> n equals a,t,g, or c

<220>  
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<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (291)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (360)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (402)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature



3744

<222> (414)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (434)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (440)  
<223> n equals a,t,g, or c

<400> 4117  
ggccatttct cacagaagat tnacactgga agctgatgaa aggatngaata aatggagagc 60  
accactttcc tgcactgat cacacagcaa acataaanca tggatngnca atntatttgg 120  
aggcacagcg ctcccccggt gtggccaagc ttggaagtcc tgttcttaca aaattgctca 180  
ctgcctctac cccatgtcag atcttataaa ggtgcagcaa gtgtggcaat aagcagactg 240  
aggaaggcat aaaggggtctg atgtgaagca nagaaggcag agngggctga nggtttggag 300  
taaaatcgag aatggccatg aagatttgac caaggagctc tgagattgag aaggaattan 360  
aacgaagtcc acagggaagt tgagaaaatt ggcagaaaat tngaagagga gggnttcaac 420  
aggagatgat caanattaan 440

<210> 4118  
<211> 69  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)

## 3745

<223> n equals a,t,g, or c

<400> 4118

gcaagtactg caagaaatgg caggatgagg gatggcaaga aagcagctgg naanaaaggg 60  
atttnanna 69

<210> 4119

<211> 196

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (107)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (112)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (124)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (129)

<223> n equals a,t,g, or c

<400> 4119

gcgaggcgct gctggcgcgag tggagccagg cacagctgag cgacgggggag ctggggccgcg 60  
aggtggacgc ctggctgcgc cgcgcccnag aacaagtacc ccgcggngcg cntgcgccag 120  
nagntgcanc gcgtgtggcg cgggacacag gacaaggtgt tggggctggc ccggggccctg 180  
tggggccagg gacggc 196

<210> 4120

<211> 198

<212> DNA

<213> Homo sapiens

3746

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (183)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (198)  
<223> n equals a,t,g, or c

<400> 4120  
ggggattgtg ggaggagccc ctgggggcct ggncgtgcct ccaccagaac ttggcattgc 60  
tgccaacana ggatctgtgc ctcagctgaa gactagctcc ggaatgtcat aanggggtgtg 120  
actgtgtatg ctttctnctt cttctcgatt ntgtggcatg gcacaagttg gctgggtgct 180  
ttnacctttc ccatggtn 198

<210> 4121  
<211> 93  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

3747

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (35)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<400> 4121  
aattcctntn tcgatccacg cntccgcaat gtccnggcan atagtaatta attaagaaaa 60  
tcgtgcaccc ttgttaccta gaatgcacgg atg 93

<210> 4122  
<211> 52  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (17)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<400> 4122  
gaaaaaaaaat agctgtncaa taagtagatt taangnaatt agaacacttt at 52

<210> 4123  
<211> 338  
<212> DNA

3748

<213> Homo sapiens

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (71)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (113)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (171)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (268)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (291)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (294)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (300)

<223> n equals a,t,g, or c

3749

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (330)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4123

```
ttcctgggcg ancacgcgtc cgggagagct cccctgcac cgtggggcnc agccagagaa 60
ggcctgggac naanaccac tggggggcct cccacggagc agccagaggg gcnaggctgg 120
gtggggggcc ggagcacctg ctgcacctgt attcaggggtg gatttttaag naagatctcg 180
ttgtagccgt gtcgctttcc taccaggagg cccatgacat ccggctgtct ctctggtaat 240
gttcatatca atgacggttg ttacctngt cattatctca ctggggctgt nacnggggan 300
agttttattct atactttctt catttaccan ctgcaatg 338
```

&lt;210&gt; 4124

&lt;211&gt; 169

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (20)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (24)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (31)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (46)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (122)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

## 3750

<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (161)  
<223> n equals a,t,g, or c

<400> 4124  
aacctantgc cattcgggcn ttntatcag natcttttct aattgngagc atgtgtatga 60  
gactatttat acccaaggat atgaaggaac ataatgtgac tacaaggctc taataagcca 120  
cngagggcag gaggctnang cggttctggt nactaaattt ntctcctgt 169

<210> 4125  
<211> 274  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (207)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (222)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (239)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)

3751

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (269)

<223> n equals a,t,g, or c

<400> 4125

```
aacattctat gcatatttgg ttgttataacc aattcatnaa tgaattcata aaatgactat 60
gaaaaaaaaatt atatgctatg ggatactggc aacagtgcac atatttcata accaaattag 120
cagcaccggt cttaatttga tgtttttcaa cttttattca ttgagatggt ttgaagcaat 180
taggatatgt gtgtttactg tactttntgg tttgatcccg gntgtataaa tgatagcant 240
atctnggaca catttgaaat acaaaatgnt ttgt                                     274
```

<210> 4126

<211> 151

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (34)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (47)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (63)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (108)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (136)

<223> n equals a,t,g, or c

<220>

<221> misc feature



3752

&lt;222&gt; (140)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4126

```
tcgggtttcc ccggggaaaaa tttcccccg gggnttccgg acccccnacc ggccgttccc 60
cgnacncctt ggtttgggtt ttaaattaaa aaggtttttt tttcaacntt cttgggccaa 120
aaaaaaaaaa aaaatntttn tataaaaaag t                                     151
```

&lt;210&gt; 4127

&lt;211&gt; 241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (33)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (69)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (98)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (116)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (129)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (130)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (154)

3753

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (193)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (210)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (216)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (239)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4127

```

gtcaggtgac ggcaggtgtc tnaccgctcg acncggcccc tgccctctgg acgtgcgcgg 60
ctccaggtnc ccgcggccct ccgccacgcc agctctcncg gtcttagcaa caaggnggct 120
gaccgccgmn ccctgcagcg gctgatcccg tggncctgc agacccagcc aacacccagc 180
ggtcccagag cgncccgct gctacccgcn gtgggnggca cccgatggcc ggcgagggng 240
c 241

```

&lt;210&gt; 4128

&lt;211&gt; 286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4128

```

gaacctagta acctccagat cccagaggct ctccctcacct cagctgagct cctttgaaag 60
tgattcaagg gactatgtca ctacagctca tttgctggac caaatctgga gggagaacct 120
ctaaaacccc taagtgaggt tgcccagggg gttgtcccca ggtgggggga agcaggggag 180
agaaaatggt agccattttt acattgtttt gtatagtatt tattgattca ggaaacaaac 240
acaaaattct gaataaaatg acttggaaac tgccaaaaaa aaaaaa 286

```

&lt;210&gt; 4129

&lt;211&gt; 151

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

3754

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<400> 4129  
gggccaaaggg gtttaacccc cnggggttcc ccccggggna aanaatttnn ccccgggggg 60  
ggttccggg aaaccccc aaaggggcc ggttttccc cgtnaaaaac ccttttcaact 120  
tttgggggn ttntaanaaa aagaaanata c 151

<210> 4130

3755

<211> 149  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (5)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (96)  
<223> n equals a,t,g, or c

<220>  
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<222> (113)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (115)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<400> 4130  
nggangtgga aagctggtn cgcctgcaggt accggtccgg aattcccggg tcgacccacg 60  
cgttcgagag tgtctaatcc tgcantcatg gcgcangaag aggaagatgc tananattac 120  
aatttgacct gaanaacata aggcgatca 149

<210> 4131  
<211> 266

3756

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (10)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (83)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (149)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (241)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (252)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (254)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (258)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (265)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4131

gctgtatacn nttaagagat ttctgacatt tattctttaca ctaaattggat caactctagg 60  
atntagatcat gttaacttct gtngtggttt gaattctctcc agagttgcat gtagatagca 120

3757

tttattttctg tgcccttaaa cccatttana aaataactac aaagtaaaaa tgtagaggaa 180  
atagaaatgt attttttcat gaacattttg atacaaattt catcatttaa tgattcacca 240  
nagttctccg tntngtcnat ttana 266

<210> 4132

<211> 132

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (15)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (106)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (110)

<223> n equals a,t,g, or c

<220>

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<222> (111)

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<220>

<221> misc feature

3758

<222> (122)  
 <223> n equals a,t,g, or c

<220>  
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 <222> (123)  
 <223> n equals a,t,g, or c

<400> 4132  
 gnnntttgatt anatnaatta gacntaatta aattagacgg tattccctaa aatgtataaa 60  
 tgtgtcactt tttaaactctg aaagccttct gatgatcaca atactntatn nggctataaa 120  
 tnnaatccac at 132

<210> 4133  
 <211> 274  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
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<220>  
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 <223> n equals a,t,g, or c

<220>  
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<220>  
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 <223> n equals a,t,g, or c

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 gtttcactta ggtgctcttc ctggtttttag aattccctga atgggcagtt tgacaggtaa 120  
 atgtgggtcca aatcagtcgt tctttttacc acttaaaaaa aaaattttcc tttgtagttt 180  
 ttttgctgtc tccccgtagc ctaaattgtg gctgagctgc ctgaagcatt cctctgcttt 240  
 agaaaagaat tatccctagt ggcaaaaaan nnnn 274

<210> 4134

3759

<211> 433  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (97)  
<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<222> (428)  
<223> n equals a,t,g, or c

<400> 4134  
gcgaactccc acctctccat ggcctgccta gccaggctgg cactgccact cacactcggc 60



## 3760

cccagggccc aggagggaca gtgcctggag cctgngnnag gcccagccca tctgtgtgtg 120  
tgtatgtgcg tgtgatgcta cctctcctcc cgctccctctc caggggcccc gcatacacac 180  
ggccatgcac gcacacactg ggccctgggcc agggccccag agctcctgcc tgagctggac 240  
cttatgcaaa catttctgtg cctgctgggt aggggcacgt ctgaagggcc ctgctccaag 300  
cctgcaggac cganggccac aagccggaca agggggtagc ccctggattn agcacacgaa 360  
caccacacga gcacgtgcc a cgcattgcctt cngntngetc attttacaca anacccccctt 420  
cccgggtnac gca 433

<210> 4135

<211> 63

<212> DNA

<213> Homo sapiens

<220>

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<222> (41)

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<220>

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<222> (51)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<400> 4135

gcggacgcgt ggggtttgtt taaaaggact gtcttttatt nataattgga ntgnaaatct 60  
ntg 63

<210> 4136

<211> 133

<212> DNA

<213> Homo sapiens

<220>

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<222> (68)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

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3761

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<222> (91)  
<223> n equals a,t,g, or c

<220>  
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<222> (111)  
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<220>  
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<222> (114)  
<223> n equals a,t,g, or c

<400> 4136  
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gcgatctngn tctagccggc gcgtgggtcg ncccgggatt tccggaccgg nacntgctgg 120  
cgtaccagct atc 133

<210> 4137  
<211> 616  
<212> DNA  
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<222> (364)  
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<220>  
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<220>  
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<222> (491)  
<223> n equals a,t,g, or c

<220>  
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## 3762

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<222> (571)  
<223> n equals a,t,g, or c

<220>  
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<222> (572)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (582)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (584)  
<223> n equals a,t,g, or c

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gaatctgttt aactccaga ctctgatgtg gccgcaccac agatcaacag gaacctcatc 120  
cagaaggctg gttaccttaa tcttagaaac tggcagatga gagccatgtg ctggagacct 180  
acctgcaagg ccagaggcaa gcaaaacagg gctgggtcacc accacctggg agaggcttta 240  
tttcttcacc caaggcgga atctcatgtg tcagcccagg ggagccgtgg ctggagggtt 300  
gatccaggac ctggacaact gctcagtgat ggccgtggat tgcgaagacc ggcgctactg 360  
cttncagatc accacgcca atggaaaatc gggaataatc ctccaggctg agagcnaaaa 420  
ggaaaatgaa gagtggatat gtgcaataaa caacatctcc agacagatct acctgacctg 480  
acaaccctga ngcangtcgc gatcaagttg aatcagaccg ctctgcaagc aagtgacttc 540  
cattacaagt ttgaaaaaaa aaaanaaaaa nnggccggcc gntntaaagg atccaagctt 600  
tacgtacgcg tgcattg 616

<210> 4138  
<211> 447  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (221)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (240)

3763

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (278)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (284)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (304)

<223> n equals a,t,g, or c

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<222> (307)

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<222> (310)

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<222> (344)

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<221> misc feature

<222> (378)

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<220>

<221> misc feature

<222> (405)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (412)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (417)

<223> n equals a,t,g, or c

## 3764

<220>  
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<222> (441)  
<223> n equals a,t,g, or c

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gtggatcttg gtcactccac acaagctaga ttgtcttaat atttgtatgg tgcactttta 120  
cttacaaaag ggaagataaa atgttttggg gaataattac caggggtctg gccagggtcaa 180  
aattgggttag tccccttctc ccattcttcta attttggttag ntaatacttg gtaaaacatn 240  
gggtttttta ataactcact aaaaagggtta ttctattntg gtantttgga taaaatgact 300  
tgancanaan gttacagcac acgaaatttt cctttaagca aatngctctc aaatatagct 360  
ttttgtcata tgcttatnca tgtttaagat gacatgaaaa ccctnacaac tntaatntta 420  
aaataaattt ttctttaata nggtatt 447

<210> 4139  
<211> 389  
<212> DNA  
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<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (181)  
<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (316)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (334)  
<223> n equals a,t,g, or c

## 3765

<220>  
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<222> (347)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (373)  
<223> n equals a,t,g, or c

<400> 4139  
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acccttgggt atattgtatt ctctgatata gcattatcag agaaaactgt aggaggaata 120  
gtctctgttg acagtgggtca aaggtagatt agagaatagt gggtttccct caagtctgaa 180  
nctgacctac taatcagcac atgtgtgagg gaactgccaa ggcagagaaa gaattttcag 240  
aanggaggag gatgacagtc tctggagctc aacacggcta agccatctaa attttctctt 300  
tactttngnt tacatnaatg atgaattgaa attncaaatt cataaanaca gttatgattc 360  
tcaactacct gangttgcgt tcaacatca 389

<210> 4140  
<211> 55  
<212> DNA  
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<220>  
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<222> (29)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<400> 4140  
gaatacgtaa aaaagtataa gggaagcant gcattcgann tactgcacta ttntc 55

<210> 4141  
<211> 251  
<212> DNA  
<213> Homo sapiens

3766

<220>  
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<222> (47)  
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<220>  
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<223> n equals a,t,g, or c

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<220>  
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<222> (233)  
<223> n equals a,t,g, or c

<400> 4141  
gctgcagatt tgtgttacag ttatttcagt atatgtcctg tccctgntaa tgtgtaggtt 60  
tgtaatatagg agatacatct catatcttct ttgttttatt catgctgcct gccanacagn 120  
cttgtagatg gtanatactg aataactatc aaatgaataa gtagttatta anaccaagat 180  
actttacaga naaaacttta ccantttctc taggactang accccaaatc tngnctcaga 240

3767

gctgctagct t

251

&lt;210&gt; 4142

&lt;211&gt; 96

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (72)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (82)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (90)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (91)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4142

ggaanaaaag tctttaatga tgaacatatt ttcccccttaa gcttaaaaatg tcttgccttt 60

gaatggtatc tnagcttaag gngaaaatan nattaa 96

&lt;210&gt; 4143

&lt;211&gt; 443

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (291)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (386)

&lt;223&gt; n equals a,t,g, or c



3768

<220>  
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<222> (390)  
<223> n equals a,t,g, or c

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<221> misc feature  
<222> (401)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (412)  
<223> n equals a,t,g, or c

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ctgagaggga ggggttatag cttcaggagg gaaccagctt ctgataaaca caatctgcta 120  
ggaacttggg aaaggaatca gagagctgcc cttcagcgat tatttaaatt attgttaaag 180  
aatacacaat ttggggtatt gggatttttc tccttttctc tgagacattc caccatttta 240  
atttttgtaa ctgcttattt atgtgaaaag gggtattttt acttagctta nctatgtcag 300  
ccaatccgat tgccttaggt gaaagaaacc accgaaatcc ctcagggtccc ttggtcagga 360  
gcctctcaag attttttttg tcagangctn caaatagaaa ntaagaaaag gntttcttca 420  
tttcatggct agagctagat ttt 443

<210> 4144  
<211> 385  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>

3769

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<223> n equals a,t,g, or c

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ggaaatatat tgtagggata ggtagcagga cactaatagt gagtcccact catgactgta 120  
agtagtgact ttggggaggta tnttaaatac tgatgtcatt aagtaattaa cttgaattac 180  
ttgtatttta ctttttagtta tcaagctgac tgctattata gtaaatatgt gtcttanact 240  
tanagtgaaa tggaaactgc ttagaagctt aactgtgtan gagtnaaagt gcacgggaac 300  
agatgggaac atttaantta tagaaataat tctggtggag ttctagggct ngtgcctatt 360  
tgttttantt tgttgtgaag antna 385

<210> 4145  
<211> 151  
<212> DNA  
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<220>  
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3770

<223> n equals a,t,g, or c

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<222> (72)

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<222> (103)

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<400> 4145

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gttgttcctt gntccaactg catgaaatgc tggagaaaat tanaacattg cttnagagaa 120  
ttggcctctt tanaatcaat tgccccagga a 151

<210> 4146

<211> 436

<212> DNA

<213> Homo sapiens

3771

<220>  
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 <222> (432)  
 <223> n equals a,t,g, or c

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 <223> n equals a,t,g, or c

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 <223> n equals a,t,g, or c

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 tcacatatga atgactttgt atatatatat atattttttt ttttctaatt gttctggatg 120  
 gaacttctag tacagtgttg aacacaatga tgaaagtgag catcagtgtg gtgttcctga 180  
 tcttaaagct ttgggtgcca acaattcagg tgggtgattgt tatgggtttt gcataaaagg 240  
 gttttatcat gtgaagaaaa ttcgaatctt cagcttattg gtggttttta tcattaaata 300  
 cgttgattat ctttaagtac tttctgtaac agttgagata aacgtgtttt tcccatcatt 360  
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 tgaaaaaaa annnnn 436

<210> 4147  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

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 <223> n equals a,t,g, or c

<220>  
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 <222> (362)  
 <223> n equals a,t,g, or c

3772

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<221> misc feature  
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<223> n equals a,t,g, or c

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<222> (403)  
<223> n equals a,t,g, or c

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aaggccgtct ccccttagcc aagtcctcct caggcttgga gaacttcctc agcgtcacct 120  
ccttcattga gccttctctg atcactccat ccctctccta cccctccctc cccaaccct 180  
caatgtataa attgcttctt gatgcttagc attcacaatt tttgattgat cgttatttgt 240  
gtgtgtgtgt ccgatctcac aagtatattg taaacccttc ggtgggtggg ggccatatcc 300  
tagatcgcca gcggccgctc tagaggatcc aagcttacgt acgcgtgcat gcnacgtcat 360  
anctcttcta tagtgncacc taaattcaat tcactggncg cgntttacaa cgct 414

<210> 4148  
<211> 442  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (316)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (388)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (390)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3773

&lt;222&gt; (413)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (417)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (421)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4148

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gaagccatag atgaggaccc atccttgact cctctccctc atcctccatt ttcagtcagt 60
agttagaaac cttcttggtta ttcctgtgaa cccatttact tgatcatctt ctactcttag 120
caccttaact tagactctct ttattttccca cctacctgaa tttcctaaaa gcatcatcca 180
cttttgaagg cttaggactt tgcgtatctt ccctcagggc ttagcttaga aaatcaggac 240
ttctctgacc tgttcctata ccctcaggtg agcttggtgc tgatgtcccc ttctnctct 300
tcatccatac ctctantctt cttctccccg tctcccatgg gctctcacag caccctgtgc 360
tatccttctg acacatataa catttgcn gn aatcgctagc ttttctgggt canaggncag 420
naactatggt gactcatatt at                                     442
```

&lt;210&gt; 4149

&lt;211&gt; 412

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (336)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (348)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (380)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (398)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (399)

3774

<223> n equals a,t,g, or c

<400> 4149

```
gaaaataatg taattgtaat ttgaaatgt ggttttcctg aaatcaagtc atctatagtt 60
gatatgtttt atttcattgg ttaattttta catggagaaa accaaaatga tacttactga 120
actgtgtgta attgttcctt ttattttttt ggtacctatt tgacttacca tggagttaac 180
atcatgaatt tattgcacat tgttcaaaag gaaccaggag gttttttttg tcaacattgt 240
gatgtatatt cctttgaaga tagtaactgt agatggaaaa acttgtgcta taaagctaga 300
tgctttccta aatcagatgt tttgggtcaag tagttngact cagtatangt agggagatat 360
ttaagtataa aatacaacan aaggaagtct aaatattnng aatctttgtt aa 412
```

<210> 4150

<211> 497

<212> DNA

<213> Homo sapiens

<400> 4150

```
ggattgcaact tcctgaccaa tcttattttg gagaaagatg gagacgataa tcctgtctgt 60
cgactgccag acttctaatt caatagataa cgttcttgag aaagaccca gacaaaaaag 120
agacacagat ataacttctg aaagtgacta tggaaacaga aaagaatgca atagaaaagt 180
tcctcgaaga tcaaaaatcc cttatgatgc caaaaccatt caaactatta agcaccacaa 240
taaaaactac aactcttttg taagttgtaa tcgtaaaatg aaaccacctt accttaaaga 300
attatatgta agctcatctt tagcaaaactg tcctatgtta caagaatcag aaaagccaaa 360
gactgaaata attaaagtag accaaagtca ctcagaagac aacacttacc agtcccttgt 420
tgaacagcta gaccaagaga gagagaagag atggagagct gagcaagccg aaaataaact 480
catggattat attgatg 497
```

<210> 4151

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (214)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (239)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (241)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (263)

<223> n equals a,t,g, or c

3775

<220>  
<221> misc feature  
<222> (317)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (356)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (363)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (376)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (388)  
<223> n equals a,t,g, or c

<400> 4151  
gaaagtatat aaatataaaa tgtataaatg atggatagat ttttgtattg atttgcaaaa 60  
tgcagattat atttgatagg ctatagtatg tagatattcc ttttaggaat attacagctg 120  
taaattatat gagacttgcc agtcaaatgc tatttggttt aaaaaaatta ttgcaatctc 180  
aagttaatgg aatattttta aatcccacat tcanagttta aaacactggg tttcaatgng 240  
nctattagtg ttgtcacttg ttnatagata aatatataaa taacctgttt ggatcctggg 300  
cctttttaac tgatccnttg gcaattctga gcatttatgt gatgacttaa tatttntcac 360  
tancctttgga gaacanatga accatttntt ca 392

<210> 4152  
<211> 71  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (61)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>



3776

<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<400> 4152  
gtgcttttat aaagttgaac aaattgaatt tagacattca ggcaaagcta ctggggggttg 60  
nntnctncna c 71

<210> 4153  
<211> 509  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (401)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (448)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (482)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (486)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (494)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (496)

3777

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4153

```
gccctgacat tacaggaaat ctacttagca acctcgtaag tgagaacaag tctaaaagca 60
gataaaatta attatcctag atcctagatg caacttttaa cttggcagtt attcccacag 120
cattttctgtt tgggtattctt acaattgcct tacactcaga attcttacta agggggccatt 180
accatagtag atattacttg gcaaataata aatacaggga ttgagcaagc tgatgtaatt 240
gactgtcttg atttaaaatg tgtattaaac ttagatctac agaatggtag ggaggcagaa 300
acaagcaaat gacttaattt gtattgatgc caaattgggtg cttgcttgag cgcttcaaaa 360
tagcagagtt gttaacacta gctacaactc taaggaccat nccataagta gggcacatag 420
ggaatttgaa ttcataaccag aatttttangg attttatattt accttctaata atataattaa 480
gntctnattg tggngntaac cctttttttt 509
```

&lt;210&gt; 4154

&lt;211&gt; 453

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4154

```
ggcgttttagt gtgtttctaata ttttaattgtt ttatatcctg aaaccaatgg tgaaaagtaa 60
tttcattgag ggtacctttt caatgcctga gtagcataca gaatcatgat tatgagactt 120
tcttttatct tcttttataaa aaatatgtgt ttttttttgt tgaaagtttt ggtctcttta 180
aattcagatt ttgtcttagg acagtaaaac ccagggtgac tgactcagga aacagttgtc 240
tgctagtcac tcataaatgt acggtcatat gttcactctt cttaaatatc caccttttat 300
aacacaaaatg taaaatagta tcagtctagc caatgatgaa ctctggaatc cacttagtct 360
tcagtaagta tgtgtgtgtcc tctaaacttt gccctgaagc caggggatct tctcctaata 420
tatgtgacat aaaaatccat tttccatgta aaa 453
```

&lt;210&gt; 4155

&lt;211&gt; 169

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (17)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (20)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (47)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (56)

3778

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (101)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (102)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (104)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (123)

<223> n equals a,t,g, or c

<400> 4155

ggccttaaaaa aaaatgnttn ttaaagactt tggaaccaag gttggangga atttantgga 60  
aaaaactttg gaaaaaaagg aagggtncaa cttcaataat nnanatagaa cagaaagttt 120  
aancttggct ggtgggtaaa gaagaagaat ggccagttat tgaaatatg 169

<210> 4156

<211> 172

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (25)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

3779

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (141)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (167)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (172)  
<223> n equals a,t,g, or c

<400> 4156  
cacgaaaaac atctactact atctntcaag ccagtanatg ccaaatttct ttntgatcan 60  
tagtgatnta caactcaagt gccatgttgc tctacaggtg cactgctata acgacagcat 120  
ttccagaatn gcatgttctt nnattgtttg tgtcgcactt atatganatg tn 172

<210> 4157  
<211> 485  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

## 3780

<220>  
 <221> misc feature  
 <222> (408)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (439)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (450)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (472)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (484)  
 <223> n equals a,t,g, or c

<400> 4157  
 tagactntga aataagtgaa atgactgggc actgatcatg atgtatatct gttacataca 60  
 taatgatttg tagactgaag agctagcagt atagtttgta ctccatgccca ttattcacag 120  
 atactatatt gaagtttgaa ctgtgttgct ggcagactgg cattatttag ctaacctgtg 180  
 gtaactgaaa ttcttgcacg tcagaattct gcaaagtaag gactacctgt atctatata 240  
 ttttttctct aagcactgct ttagttttat ctccacaaatt ttgacatttt gtgttctcat 300  
 attaattaaa ttcaagttac tttctaattc ctcttttgac tttctcattg acacatagg 360  
 tattttataa gtgtgtttta ttttctaata tttgggggga cttctganat gtctttttat 420  
 tattttattc taattaatnc cattatggtn gggttaatata ctctgaatga tntccattct 480  
 tatna 485

<210> 4158  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (304)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (306)  
 <223> n equals a,t,g, or c

## 3781

<220>  
<221> misc feature  
<222> (314)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (315)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (318)  
<223> n equals a,t,g, or c

<400> 4158  
gcctcagtgg acgacatgct caaggtgagc tcccgggtgt caagcggagg ccttttcctc 60  
caggacgacc ctgtaggtac caggaggggt ggggcagggt tgagcccttc gtggtcttgt 120  
tgccacacta gctgcccttg ggagggggcca gtgtcccatg tggactaagg aggccaggcc 180  
tggccagact ccacatagcc cagagctgac cgcttgcccc aaatcaaagc atcttggcca 240  
ggtcagactc cttgaccagg actgccattg tggttaaaaa ttagccttgt gtggtggtgt 300  
gttncntgtg gtcnnagntt actt 324

<210> 4159  
<211> 134  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)

3782

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (114)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (118)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<400> 4159

cnnttaccaa caggtnagcg cacgctgaat ggcgaatgng acgcgccctg aagacggagc 60

attaaaacac ggcaggaatg naggttggtt acaacacagg gtgacccgct acantacncc 120

atacngngcta acag 134

<210> 4160

<211> 84

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (62)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (65)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

3783

<400> 4160  
gaaaaggatc aaaggatatt gaattcccg g tccgacagaa agagggtctat atcaanagag 60  
tngtngatcn ggcaaaagat cttn 84

<210> 4161  
<211> 310  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (159)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (161)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<220>



3784

<221> misc feature  
<222> (199)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (240)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (279)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (298)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (304)  
<223> n equals a,t,g, or c

<400> 4161  
acgcctnccn gtaccgggtcc ggaattcccg ggctcgaccca cgcgtccgcc cacncgtccg 60  
ccncncgctc cgggacatga atagtcgcca ggcttggegg ctctttctct cccaaggcag 120  
aggagatcgt tgggtttcaa ggccccgcgg gcatttctng nccgncctgc ggagagagtt 180  
cttcactacc acaaccaant gagggatatg ataggcngtc agtggatata acttctttan 240  
aacaaggaa attaaacttt gatacccatg cattgggttna ggacttggaa actcatgnga 300  
ttnacaaaaa 310

<210> 4162  
<211> 126  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

3785

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (89)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (123)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (125)  
<223> n equals a,t,g, or c

<400> 4162  
tcctacggca ngntctaata cgactcacta taggcaaagn tncaacgcct gcagttaccg 60  
gcacgaaatt cccgggtcga cccacgcgnc cgctcaataa atattctcat tgtcaatcac 120  
ccnana 126

<210> 4163  
<211> 145  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

3786

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<400> 4163  
acgcctnccn gtaccgggtcc ggaattcccg ggtcgaccca cgcgtccggc ccgcagaagc 60  
gagatnacna agggaaacgtc atcgttngga aagcgtcggc aataagacgc acactgttgt 120  
gccgtcgctg nggntctaag gccta 145

<210> 4164  
<211> 230  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (123)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<220>

3787

<221> misc feature  
<222> (187)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (193)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (210)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<400> 4164  
ggaattccat ttntgggtcat attatggcag cttacaagcc tggcacagtc cagttatgca 60  
gtcagccttg gtgcctggct gccagccaca ttctataccc tatttggggg tgaatgggtgc 120  
anngtttctc ctgcangtat gttccctga ctcttctttg cccccagaa tatgcttttag 180  
ggagtencag acnacagaac actgccccan ggcgctgtcn atcactctat 230

<210> 4165  
<211> 135  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>

3788

<221> misc feature  
<222> (62)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<400> 4165  
tatgaccatg attacggcaa gntntaatac gantcactat agggaaagnt ggtacagcgt 60  
gnaggtaccg gtccggaatt gccgggaacg acccaacgcgt acgatttana tgctgctggg 120  
natgttaatg anaga 135

<210> 4166  
<211> 130  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (19)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3789

&lt;222&gt; (69)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (101)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (117)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4166

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tgggacgcct gcaggnacng gaccggaatt cccgggtcga ccnacgcgtt cggaggaana 60
ctgtgcagnt accagcacac atgcaaagcg gaaaggcgac ntttctaggt gcccgangca 120
atacaagcat                                     130
```

&lt;210&gt; 4167

&lt;211&gt; 119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (27)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (69)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (91)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (107)

## 3790

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (115)

<223> n equals a,t,g, or c

<400> 4167

tntaatacga ctcantatag ggaaagntgg tacgcctgca ggtaccggtc cggaatatcc 60  
cgggtcganc cacgcgtccg tgggattttt ntgtgttact ttggcngta ttttnaaac 119

<210> 4168

<211> 171

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (27)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (50)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (83)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (139)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (164)

<223> n equals a,t,g, or c

## 3791

<220>  
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<222> (166)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (168)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (171)  
<223> n equals a,t,g, or c

<400> 4168  
cataacaatt ttacacagga aaacagntat gaccatgatt actggcaagn tntaatacga 60  
ntcactatag ggaaagggtg tangcctgca ggtaccggtc cggaattccg agggacgacc 120  
cacgcgtccg ctttgaatna gagtcgaagg ttaaaatgag agangnanga n 171

<210> 4169  
<211> 169  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (34)  
<223> n equals a,t,g, or c

<220>  
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<222> (62)  
<223> n equals a,t,g, or c

<220>  
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<222> (68)  
<223> n equals a,t,g, or c

<220>



3792

<221> misc feature  
<222> (128)  
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<220>  
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<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (143)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (169)  
<223> n equals a,t,g, or c

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tatgaccatg attactggca agntntaata cgantcacta tagggaaagg tgagacgcct 60  
gnaggtancg gaccggaatt cccggatacg acaccacgcg tccgagagag tgtgcttgct 120  
cagagacntg nagccantca ganacaggat taaatggtgc tgtgagttt 169

<210> 4170  
<211> 169  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3793

<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (55)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (138)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (144)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<400> 4170  
aacaggtatg accatganta cggcaagntn taatacgact cantataggg aaagntggga 60  
cgcgtgcagg aaccggtccg gaattccagg gtcgacccac gcgaccgaaa gtgtatgtag 120  
tatataaaga atttggtnta tgantgnaga atcaanataa taanatgta 169

<210> 4171  
<211> 160  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)

3794

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (76)

<223> n equals a,t,g, or c

<220>

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<222> (91)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (112)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (128)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (139)

<223> n equals a,t,g, or c

<400> 4171

gaaacccaag gaaagccgtt cggtnaaggt ccggtccgga attccccgggt cnncccacgc 60  
gtccgggtgta tcctgnttta aaaaaatgta nttttttttg aaataaacct tnatattctg 120  
tatatttntct aaggggggng agaacctttt gaatgtgtca 160

<210> 4172

<211> 258

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (16)

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<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

3795

<220>  
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<220>  
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<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<222> (180)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (236)  
<223> n equals a,t,g, or c

## 3796

<220>  
<221> misc feature  
<222> (240)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (245)  
<223> n equals a,t,g, or c

<400> 4172  
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tatagggaaa gntggtaacg ctgcagggtac cgggccggaa ttcccggntc gacccacgcg 120  
tncgttctat ttcttttgac aaatnngaac atttctaaaa ctaaaagagt ctttntattn 180  
ttaaacaaca agtagaatga tttaaataagg attttaatga atttttggca agtggntgtn 240  
ttaantttta aattgaga 258

<210> 4173  
<211> 150  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (17)  
<223> n equals a,t,g, or c

<220>  
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<222> (34)  
<223> n equals a,t,g, or c

<220>  
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<222> (44)  
<223> n equals a,t,g, or c

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<222> (45)  
<223> n equals a,t,g, or c

<220>  
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<222> (79)  
<223> n equals a,t,g, or c

<220>  
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<222> (104)  
<223> n equals a,t,g, or c

3797

<220>  
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<222> (129)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (147)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (150)  
<223> n equals a,t,g, or c

<400> 4173  
gctctaatac gactcantat agttgattgc tggnacgcct gcanntaccg ggccggaatt 60  
cccggatcga cccacgcgnc cgaattgctg gcagccattt atgntaaaaa tgcatatatg 120  
cattctgtna ggaagacttt atactgntan 150

<210> 4174  
<211> 201  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
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<223> n equals a,t,g, or c

3798

<220>  
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<222> (142)  
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<220>  
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<222> (164)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (172)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (190)  
<223> n equals a,t,g, or c

<400> 4174  
nacgcctgna ggnaccgggc cggaattccc gttcgancca cgcgtccgcc cacgcgnccg 60  
cataattata gcttatcact taattttgtg tgccagggaa ggcattggcca gaattaatat 120  
gccacagtac cctcatcatt gnttttatag ccattcatgc cccnncttcc tntggcacat 180  
tttctaagan attatttcat a 201

<210> 4175  
<211> 131  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
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<222> (19)  
<223> n equals a,t,g, or c

3799

<220>  
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<222> (45)  
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<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<220>  
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<222> (111)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (120)  
<223> n equals a,t,g, or c

<220>  
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<222> (123)  
<223> n equals a,t,g, or c

<400> 4175  
tgattacnnc aagctctant acgactcaat atagtgttg ctggnacgcc tgcagntacc 60  
gggtccggaat tcccgggtcg acccacgcgt ccgcccgtcc ccgtctctcg natttgtggn 120  
ctncttggct c 131

<210> 4176  
<211> 181  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<220>



## 3800

<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
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<222> (72)  
<223> n equals a,t,g, or c

<220>  
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<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (149)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (166)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (178)  
<223> n equals a,t,g, or c

<400> 4176  
aaacagcnct gaccatgatt acgccaagct ctaatacgac tcactatagg nattgcttnn 60  
acgcctgcag gnaccggacc ggaattcccg aatcgaccca cgcgtccgct aacagggcnc 120  
atacttaaga ttccatctac tttaagttna aaggattttt agaatnacct taagtgcnaa 180  
a 181

<210> 4177  
<211> 296  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>

## 3801

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<220>  
<221> misc feature  
<222> (31)  
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<220>  
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<222> (85)  
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<222> (118)  
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<220>  
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<222> (136)  
<223> n equals a,t,g, or c

<220>  
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<222> (141)  
<223> n equals a,t,g, or c

<220>  
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<222> (149)  
<223> n equals a,t,g, or c

<220>  
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<222> (163)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (221)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3802

<222> (239)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (247)  
<223> n equals a,t,g, or c

<220>  
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<222> (257)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (270)  
<223> n equals a,t,g, or c

<400> 4177  
naaccgncaa natgcgacaa atccccgaaa ntttgggggtt aagggcacgt accgcgtccg 60  
gaattccccgg gtcgacccac gcgtncgcgg acgcgtgggg cctgttccg ttacccgngc 120  
tacctcagcg gctacnagac nacactggnc ctggggccgc tgnatgagtc accctgtgtc 180  
cacgccacgc ccccgctgag cctccccccag aacctcacag ntgaaggggac aggcaaccnt 240  
ggagccngcg tgtcagncat ccgggaaactn ttcaacttct ccagctgcca gggcca 296

<210> 4178  
<211> 166  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (30)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<222> (77)  
<223> n equals a,t,g, or c

<220>

3803

<221> misc feature  
<222> (91)  
<223> n equals a,t,g, or c

<220>  
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<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (154)  
<223> n equals a,t,g, or c

<400> 4178  
cacacacaac tattattatn attatgtttn caagttcagt tnttagactg atcattcaca 60  
aagggtggtt ttcagtnntgc tgagatcttg nttttctttt tgtgttcaca gatgaagccc 120  
ggggcaagaa ctgtgngnnc ttggtacatt gctnggctgg cattag 166

<210> 4179  
<211> 297  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
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<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>  
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3804

<222> (54)  
<223> n equals a,t,g, or c

<220>  
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<222> (111)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (159)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<220>  
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<222> (181)  
<223> n equals a,t,g, or c

<220>  
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<222> (191)  
<223> n equals a,t,g, or c

<220>  
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<222> (196)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (236)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (238)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (253)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (267)

3805

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (290)

<223> n equals a,t,g, or c

<400> 4179

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tncctcttcc acgagnaccg gaagatgngc acatgcgagc ctggggctgc ncgntgaagg 60
gactacttgc ttcgaaccgc tagacagtga acaaaggaac ttgatagctg ncctggacca 120
ggacgtcttg gcacaacctt atccggaatg caactacanc tacnccatag aacatcttac 180
nccccatcaa ntgagntgag ggggcgcaac ccgggttggc cccattggca acccangncc 240
tttagtagtc ccncccccca aaaaaanccc tttaggcatt tccttgggcn aaaatcg 297
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<210> 4180

<211> 128

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (62)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (80)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (113)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3806

&lt;222&gt; (114)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4180

```

ttngnggact ggggtgtctct ggtcgaactc tgtccaaaaa cgtgcatggg atataacttg 60
anaagcttgc cacaattggn gtataaagca tgtggccata cccaatttca ganngcttac 120
caatagag                                     128

```

&lt;210&gt; 4181

&lt;211&gt; 403

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (311)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (362)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (386)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (395)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (397)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4181

```

gagaacaata ctgtaagggt aagaaggata gatttctttt tctattgact gctgaggacc 60
gaagctctag aatgtctaac agttcagcca ggatcacata ggaatattcc gattcagagg 120
cagaaatctg tggctctgcac tatgctttca ggtcagatta gaggctcatt ccttttgaca 180
ccatgccatt gtgagcttcc aaaacaagat ccgctctcag gcaagcctct gaatgggtta 240
caaagttcaa aatggagcca agcacaagaa gagttgccaa gagtgatata gaacgctctg 300
tggaagctg ntgtggaaaa tcagcacacc cagcgctgtg agtaatttaa ccaatacagc 360
anaaaaacgt agcttgctgt tttttnaaaa aacntncac aga                                403

```

&lt;210&gt; 4182

&lt;211&gt; 174

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

3807

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (31)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (118)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)  
<223> n equals a,t,g, or c



## 3808

&lt;400&gt; 4182

```
caggtagcg ggccggaatt cnnnggtcga nccacgcgtt cggcggtcna tccgctggaa 60
ggagagnaat caggaaaccc attgatagga ttatcgccag gcatgacctc tntcaatngc 120
cactttctat tcttttgaag tagaactntg gagcnacagg gcnacagacg gcgg      174
```

&lt;210&gt; 4183

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (6)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (523)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (527)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (539)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (560)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (561)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4183

```
nggttntcac attcaaaggg aatgagattt gaaaatgatt tctttgagtc ctctgctgag 60
gtctttccaa ggcactacaa ttagggcttt gcacccaaat acccttgccct cattttggtc 120
attttgtcct ggaacagagg ttcagctggg agacccctca cacacagggtg aaggcgtggc 180
tgtagaacct cagacccctt ggtctcctca ggaatgaagg tcattgccat cctcacctc 240
ctcctcttct gctgtaagta gagagcttgg tgggtcagca ccaagcttct gtcttcctgt 300
```

## 3809

ttatgtcagt gggagggggg actctccagg tggcaccagg tgaggggaagt cacaagtcct 360  
gcagaaaaga atcaggaaag gaacgggctc ccaccaacgt cctcttgctt ctgtttctgc 420  
tataaaatgg gctgatccca gtgttgggat cttataaagt gtctaggaaa tcagagggtg 480  
ccaaccattt gctagaaagg gagtttgact actattttac ccncctnacc ctcaagagnc 540  
ttttttcctt tggatgctan naggctttat ttaaggccat t 581

<210> 4184

<211> 76

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (50)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (65)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

<223> n equals a,t,g, or c

<400> 4184

gcggcgcgt gggattgaat aggtcagaag tagaatcttt tcaatagggn anaaagttgn 60  
ggtgnagagg antatg 76

<210> 4185

<211> 66

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (29)

<223> n equals a,t,g, or c

<220>

## 3810

<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<400> 4185  
aacagcttaa gtccatgggt aatccgttna tagaaattgt gtttgctaan aaggtgccat 60  
ttannc 66

<210> 4186  
<211> 156  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (136)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (143)

## 3811

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (146)

<223> n equals a,t,g, or c

<400> 4186

```
gaaaactgtc ttcatatatatt taaaagtgtg atcatttttct taaaagttnt acaaaagctt 60
tgtatttctt atttaaaaaaa tctttgcccc atttggtgaa gatattctct tatttgtnnt 120
cntaaaaaatt accttnatag ctntgntttt aatatt 156
```

<210> 4187

<211> 172

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (133)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (137)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (152)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (153)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (169)

<223> n equals a,t,g, or c

<400> 4187

```
gcttttgaat tttgttcaac atgatcaata ttacatgtta ggatcattca gatgtagtga 60
atgagagttt atagtgggtt acttatttaa atatttgact tttaagttcc tcacaatata 120
tttcattctt ttntctnctg ttgcatggat anngcatata catacctana aa 172
```

<210> 4188

<211> 138

<212> DNA

<213> Homo sapiens

3812

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (32)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (38)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (122)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (135)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<400> 4188  
cgaccgncgg ctgcggcntg gacggggcat gncatgtngc cattgactgc ggcgcggtcg 60  
gccatgcagg actactntgt aagccccata ggagatcctt ggcgcacaaat gctgcgggttc 120  
tncctcngng gcttnang 138

3813

<210> 4189  
<211> 67  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (56)  
<223> n equals a,t,g, or c

<400> 4189  
gactagttct agatcgcgag cngccgccct ttttttccct ttttacattt ttcttnttgt 60  
ttatgat 67

<210> 4190  
<211> 453  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (53)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3814

<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (96)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (100)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (110)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (119)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (124)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (129)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)

3815

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (231)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (357)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (364)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (430)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (450)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (453)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4190

```

tncttattga angatgagat ttacattttc aaagatgatt naaataattt tnnttaatgn 60
ctgcaaaccn ttggcttgct taaggaatga acaganggtn tnaagggctn attaagaant 120
aaantgaant gacatttana aatatggaaa tccattaaga gtntttaagg agcttgggga 180
gaggagcttt aataagaaaa gccatctgca ttgacagcca agaaccattg nttctttgtt 240
gaaaactgac catttcaacc tgcacatgca gttgaggata agtttactga tcttgccaca 300
gatgagtttc aaacagaagg aataaggaaa acagtatcaa ttgtttccct ggaactncat 360
tcanatttca aggcgagtgat aatcagaaaag gatgatttct acttgctggg ttgatttaat 420
ccctttccan atgattgaca ttttctgctn ggn 453

```

&lt;210&gt; 4191

&lt;211&gt; 104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c



3816

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (74)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (103)  
<223> n equals a,t,g, or c

<400> 4191  
gccacnctg cgcggcgcgt gtcgcttta gacgtaatac gtctaaaggg gatnggacca 60  
tgatctttac ctgntgactc tggaattgaa taaanaaaaa ttnc 104

<210> 4192  
<211> 393  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>

3817

<221> misc feature  
<222> (59)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (120)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (172)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (195)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (216)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (221)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (230)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3818

<222> (253)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (262)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (264)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (267)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (272)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (283)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (286)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (292)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (310)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (359)

3819

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (386)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (391)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4192

```
ttttccnttc agccctgaca acccatccac acacggggcan gcctgttnat ntacactgnt 60
gcccaactact ctctccagct ncacatgctg tacctggatc attctgaagc aaattccgan 120
cattacatca ttgtgtccat aaatatttct aacatnctta aatatacaat cngaattcaa 180
gcactctccca ttgtncacaa aatgtttggc tgatgntgta nttgnattgn ttgtattagg 240
attaaagcaa ggnccatata tngnatntat tngaaatgct tgnaantctc tntccatcta 300
cagagtttan canatttgaa cgttgctggg tgaaatcccc aggtgtcatt tgacatggnt 360
ctctgaactt atctttccta taaaanggta nta 393
```

&lt;210&gt; 4193

&lt;211&gt; 267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (135)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (147)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (149)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (218)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (222)

&lt;223&gt; n equals a,t,g, or c

## 3820

<220>  
<221> misc feature  
<222> (243)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (249)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (259)  
<223> n equals a,t,g, or c

<400> 4193  
ggtaacgtta ctgtattatt ctacgtaaat gtgggtactt ggatgtttat catactgttt 60  
ctctgtgttt acatactaata ttgtgtaaga aatgcatttt agtctgtgta cctcaacctg 120  
ctgtttgttt cctanagggtg ttagtantnt ttaaatacaa gtaagactta agaggatatt 180  
tgatgttatt tacctggata ttttattccc cttttatnta tncacaggaa attgacattc 240  
tangaccant aaaatgaana caaaatt . 267

<210> 4194  
<211> 301  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (139)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (192)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (201)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (218)  
<223> n equals a,t,g, or c

## 3821

<220>  
<221> misc feature  
<222> (228)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (268)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (275)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (282)  
<223> n equals a,t,g, or c

<400> 4194  
gcgcctgtgt gtggaacctg caatcacact gggaagttga gttgggagga gattcctgat 60  
tcttacacgc acttcttcat atgtgggtcc ctctggnga tcaccaggag gtccccaaaa 120  
gtccctgatt gcagggtang tttgcagctc tgtttcagtc cattcttttg gggtagctag 180  
gaggtgtcat tnactctgca ncatgatggc aggagcanaa gccacatntc ctccccata 240  
aatacctctg tctttcctta cgctaataaa aaaanaaaaa anaaaaaaaaa aagggcggcc 300  
g 301

<210> 4195  
<211> 110  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (3)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3822

<222> (42)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (93)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (105)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<400> 4195  
ngnacgnctg caggtaccgg tccggaattc ccgggtcgac cnatgcgtcc gggtatatca 60  
gtaataaaaa aaataacaga acccttaaag ggnatccaca ntgantggnt 110

<210> 4196  
<211> 461  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (409)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (428)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (433)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (440)  
<223> n equals a,t,g, or c

3823

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (455)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4196

```
gccacgtgga gagaagttgc cctccaggcc gacaggaggc catgcccacc gcccctggac 60
aggcttcgtc tcagaaggct ctatctgctg ggctggcggc catccccgtg ttgggtggac 120
cccgagcacg gttgcctgag gtccgatggc ccgagagctg ggactcagtt cttggcctgc 180
tagcgggtga acaggccgca catctcactt cagttgtggc ctcattcagc agatgactct 240
ggaaccatcc tctgttaccg gcagatcctg tcccatgggc tctggcccca agatgttggg 300
gggccccacg gagagttgac ttggtagagt tcctttctgg gaagaaagta ggagtggctg 360
accaggccct gctcatcacc cggatagagg acacggaccc ttgtgtggna ttttggcatt 420
ttggcttnaa agnccaatgn accattgttt gccanaaatt t 461
```

&lt;210&gt; 4197

&lt;211&gt; 376

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (64)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (73)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (101)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (115)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (120)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (126)

&lt;223&gt; n equals a,t,g, or c



3824

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (201)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (210)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (218)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (248)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (250)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (276)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (300)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (307)  
<223> n equals a,t,g, or c

<220>

3825

<221> misc feature  
<222> (315)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (331)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (369)  
<223> n equals a,t,g, or c

<400> 4197  
gcggacgcgt ggggagtggg ggagggaggt gtgcatacca ttttatatgg tgtgagagct 60  
tcanaccaag ganacattta accatctctc cccctttcct ntgggggtgac tgcanttgan 120  
gaaagnatgc catggggtaa ggggacattg gtggncacat tttgggtgaca gacccttgct 180  
gttgctctctg tgnccccatt ntctggactn tggcctgncc tcctagtgtc tgtgactccc 240  
tctcttttnan cccaccccc atggtatgta tattcnttac aagtcctcca caagagcagn 300  
tgtctangat gcgngagggg gaggctcctt nccttaggga gcgtggatag aaaggagcat 360  
acttggtgnt gtattt 376

<210> 4198  
<211> 65  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (58)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (63)  
<223> n equals a,t,g, or c

<400> 4198  
ggagggaggg tgggaaagtt tggggggggg gttgtgaaaa cttagggncta attctggnct 60  
ganct 65

3826

<210> 4199  
<211> 355  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (7)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (107)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (277)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (294)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (317)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (339)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (354)  
<223> n equals a,t,g, or c

## 3827

&lt;400&gt; 4199

gaaganngtg tagaagaaat ctgccattta tattaataag aggaaaagga gcctctttct 60  
taagacatct ctggatgaat gttaagaaa ctgatggnta ttgcctntga tgaggggaat 120  
tagatggctt gaggacgaag tggatggaag actttatatt atctttaccc ctttgtgtcc 180  
ttttaatttt aaactacgtg atgtaacttg ctcaaaaagt agagataaaa tttaaaca 240  
cccgaaaaat aaactctaga tcaattctat tgcttgncaa aggctttaat taancttgag 300  
ggcaattctg ccttggntaa aggtattaaa gctatgcang caccaagctg aaant 355

&lt;210&gt; 4200

&lt;211&gt; 56

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4200

gctantaata aacggttgaa gtattgcaat aaaacttgag ttttaaaaaa aaaaaa 56

&lt;210&gt; 4201

&lt;211&gt; 178

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (6)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (35)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (65)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (114)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (152)

&lt;223&gt; n equals a,t,g, or c

3828

<220>  
<221> misc feature  
<222> (162)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (167)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (174)  
<223> n equals a,t,g, or c

<400> 4201  
gaacctaca tttccaaga ctcagggaac acagngatct acacagagtc ttgtgtttgc 60  
acaanatgcc cagtggcacc atatggttta ttttggtagg caggatcttt gcanatgaaa 120  
aaaaaatcta catgtacttg attttaattg anttacattg anaatangct cctntgga 178

<210> 4202  
<211> 50  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (41)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<400> 4202  
ggtccnacgg gtccnggtac cagcacgtgc aggagtgggtg ngagctgagn 50

<210> 4203  
<211> 616  
<212> DNA

3829

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (479)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (482)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (565)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (581)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (598)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (605)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (614)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4203

```

gcttgaagcc tgaaattgca gcactcatTT ggtgaccagg agtgggcaaa cagaaggaca 60
aaggcctaca agattaaata atcaagtcAT tattgtgaat ttggatctaa atgacctggc 120
agaaaccatg gagatgatct tggatttaaa gaggaaaaaac tcaaagcaat gtattctgat 180
caagaaatgg caggaaatgg cagctacctg atatggaaca atcaacaact gaaggtttat 240
tttgaatgag aggtgttgTC caactgCGag acggagtgAT tgaagctgag aataaatgga 300
aacacaatca atagtcaCTc cagtgaaggta ggaaagaaaag ccattccgaa gtggcagaga 360
agctgctttt tcttcctgca tgctgcctgC tagtgtggAT cttggcataa cagacactac 420
ttggcaaaaag atccatcctt ccttttccta tactttgctc agcggcctgg aagattganc 480
tnaaaagcaa aatcacctgg atttccttgc catttggtct tcaaagtgtc tcagccaatg 540
acaggctgga aagaaattga cagcntggga aaaagaggaa naatttgtgt ccaagaancc 600
ttccncttcc catntt                                     616

```

&lt;210&gt; 4204

3830

<211> 94  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<400> 4204  
gaaacnttgc agacatggag gtcctgttct ggacacaccg tgaaggagca gtatggaaac 60  
tcttcggaag ctncaanatg atggangtgg ctga 94

<210> 4205  
<211> 370  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (310)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (313)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (315)

3831

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (320)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (347)

<223> n equals a,t,g, or c

<400> 4205

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gtctcgaatt gctttatcta agtggcttcc atcagcagag gatagggttct ttagtcctat 60
atgtttatat gtggagaaat ggtacaggat aggaactgtg tttgaagacc tgatgtatat 120
ttacaaatag gtagatctca ttagcttata atatttggct ttgaagttga aggctagttt 180
tattcattgc actgtatttt gctatcagat gtgaatttat ttagaaataa agaattctgc 240
tgtgaataat tgaggaaata cttaattcct tgacttatgt aaagaacacc ttgttcaatt 300
ggattggggn aantngttan ggtgctaagg ctctgagtga aactctnagt actgtatctg 360
tgtcaatggt                                     370
```

<210> 4206

<211> 351

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (27)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (65)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (78)

<223> n equals a,t,g, or c



3832

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (105)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (154)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (208)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<220>

3833

<221> misc feature  
<222> (213)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (220)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (231)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (233)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (237)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (250)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (284)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (305)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (322)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

## 3834

<222> (338)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (351)

<223> n equals a,t,g, or c

<400> 4206

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tccactatag ggnnagctgg tacgccngca ggtaccgggc cggaattccc gggtcgaccc 60
acgcntccgg accaattncg ggacagtcaa ggattctcaa tntgnatnnt ccaggcaaga 120
gaactttgta cnccttctct gtgtggatag actncncagc gttnttccta tggaaatgcc 180
cacagggctt gacgcgtgga gactgatntg ntncatncgn tagcgcgagg nancagngtc 240
gcctegcccn tcccactgcg ggctcacggg gagctggcgt ctgncagtgc cttggcacgc 300
ctggnataaa ggttggctgg angcctgtca ctggcttntg gagctgaagg n 351
```

<210> 4207

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (154)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (159)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (166)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (168)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (197)

<223> n equals a,t,g, or c

3835

<220>  
 <221> misc feature  
 <222> (223)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (340)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (342)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (345)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (350)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (389)  
 <223> n equals a,t,g, or c

<400> 4207  
 ggtggattct tttctctctcg tggctctcact ttgttacttg tttctgtccc cgggagcctc 60  
 agggctctga gagctgtgct ccaggccagg ggttacacct gccctccgng gtccctccct 120  
 gggctccagg ggcctctggt gcggttccgg gaanaagcna caccnanaag gtgacagctg 180  
 agccctgcc acaccnagc ctctgacttg ctgtgttgtc canagggtgag gctgggccct 240  
 ccctggtctc cagcttaaac aggactgaac tccctctgtc cccagggcct cccttctggg 300  
 cccctacag tctaccctac ccctcctcca tggggccctgn angangggan acccaccttg 360  
 aagtggggga tcaagtatag gcttgcaent g 391

<210> 4208  
 <211> 140  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (35)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature

3836

&lt;222&gt; (84)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (97)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (117)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (121)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (140)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4208

```
gaattctaatt ggaaacgccc gactataggg tttgntggaa cgccccgcag gtaccggtcc 60
ggaattcccg ggtcgaccca cgcnttcgta cagtttntgg gaccacattg aggtggntga 120
ngatgaagac gagacgcacn                                     140
```

&lt;210&gt; 4209

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (6)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (12)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (14)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (15)

3837

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (89)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (144)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (195)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (212)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (227)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (237)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (315)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (338)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (347)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (350)

<223> n equals a,t,g, or c

3838

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (357)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4209

ggatgnacct tntnngtggc ggttgtggtg gtcctctgag agagcagaaa ccctgcatgt 60  
cagataggggt ctgccaaccc taccctgana tggagctgct tccagccaca tcccatcgtg 120  
gcatcattgt ggctgggtctc ttgngctgta tctactgagct gtggcgctgc gtatgtggag 180  
gagaagactc aatanaaaga ggagtacact angctgaagc agtacantgc cagggcntga 240  
tggccctcac agcttgaaag tggaacagct gcttgtgtgg actgaaagca agttgtcctg 300  
ccttccttgt acttnaaacc ctgctttgtt ctgaaagnac ctgatgngcn ggttcgngag 360

&lt;210&gt; 4210

&lt;211&gt; 157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (13)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (26)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (30)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (34)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (87)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (102)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

3839

&lt;222&gt; (132)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (140)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (150)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4210

```
catgtataaa aanagttaca ttttanttan gcgncaaaat attatggtgg agcctaattt 60
gatatgctct ttaagtaata ttgagtnttt caaaagatac tncataatga tgaattaaaa 120
taactttata tntctctaan gaaataacan atagtat 157
```

&lt;210&gt; 4211

&lt;211&gt; 215

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (14)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (38)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (44)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (89)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (95)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (106)



3840

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (165)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (166)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (181)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (209)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (212)

<223> n equals a,t,g, or c

<400> 4211

```
ttaatacatt accnaaaaaa aagaatgggg gaaaaagnaa aggnngcggtt aaggccccct 60
acgaccgcca tgcacgctag ctctatagng caccnatcat cactgncgcg ttacaacgcg 120
tgctggaaac cctgcgtacc cactaatcgc ttgacacatc ccttnncagt gggaaacgaa 180
naggccgceg tcgccttcca cagtggcanc tnatg                               215
```

<210> 4212

<211> 103

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (29)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

3841

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

<400> 4212

ggttgtaagg aacctgcang catggacgna ctggaataga tgctcatact cttcctgggtg 60  
tgcctgtanc ctncctattc tcanacccac tttcctgttg ctt 103

<210> 4213

<211> 211

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (45)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (64)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (108)

<223> n equals a,t,g, or c

3842

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (168)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (172)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (181)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (189)  
<223> n equals a,t,g, or c

<400> 4213  
aggnataccn ttcttttggtt gagctaataca tgatatgtcc gaganctgga tttttagaac 60  
tgcnatcttc tcctaatagna cctgacccca aagtcaggct gtccgcgnct cggcctgacc 120  
gtcacacagg gcggcaacag agcactaaga cgtgngacat atgaaatnga anagaacgtg 180  
naacagatna ttattctctt gaatgtgata g 211

<210> 4214  
<211> 162  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (31)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

3843

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (131)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<400> 4214  
gtccttcttc tctatagcan cctcaccgtc ncncgagcag gtggagcang cgaacgcttc 60  
tcatgctcgn atgcatgagg ctgtgacaac cactcacgca naaagcctct cctgtcccgg 120  
taaatgagtn nacngccgga agcccccgtc cccggctctc gc 162

<210> 4215  
<211> 129  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (51)  
<223> n equals a,t,g, or c

<220>

3844

<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (95)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (99)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<400> 4215  
agtgaagtnt gcgaagataa gctcttaatt cgtgggtgat ctgtatctct ngctttntaa 60  
tgtaacaaaa atatcttaca gatacatgaa attangaana tctaaaagta ccattactct 120  
aaactaana 129

<210> 4216  
<211> 302  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3845

<222> (96)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (106)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (146)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (151)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (169)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (191)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (214)

3846

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (229)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (256)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (291)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (298)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4216

```
ttgctgcttg ngtgtnatct tgtncatgcc tgctcatgaa ctgtaagttc aatcaaccag 60
cagncatgca cactcgggat cactccaaat gatagnaaaag cnaaanatth aaaggggtgt 120
ctcttgatan acagaacatc accatntaag ncgctgtttt acgactgtna cactgacaag 180
ttgtgggtcaa nccngaggaa tgtcaagcag acantgggtga acatttgana ggcatagtg 240
agctttgtca atgganctac ctgcgatctg tggattgggc gaataaaaaa ngacacgntt 300
tg                                     302
```

&lt;210&gt; 4217

&lt;211&gt; 127

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (3)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (21)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (26)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

3847

<221> misc feature  
<222> (68)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (81)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (108)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (124)  
<223> n equals a,t,g, or c

<400> 4217  
cancggagg aaaggcacgt nagganctgg ttggcgga ttcgtgaagc cgcgcaggtg 60  
gtgggtgnac ggtgcaggag nagattgttt ggtactgagc gtgcgcgna caggttggg 120  
ggaatt 127

<210> 4218  
<211> 359  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (16)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (24)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature



3848

<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (92)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (110)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (193)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (252)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (256)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (257)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (259)

3849

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (265)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (295)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (306)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (315)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (346)

<223> n equals a,t,g, or c

<400> 4218

```
gcgcgggcgggt ctgatntttca tctntgcgga gatgtengcc tgtagctgac cttacgacct 60
gtggtncaga gagtccggga ggccgtctga cnaccagcc ngaaacagcn ctcggatccc 120
agctgataag gagctggggc tcggtgtcta tntgtgaacc actgcacgcg gacacattac 180
aggctcgggc tgnncgtcct ctcctgctgc agctgcatct ccgctaattgg ggccagctgc 240
taacattgag gntggnnncnc atccnttcgg cgtccgtga gacaaggcag cctgnccacc 300
agctgngcac ttcgnctgat gacacagatg gctcatgaat gcctgngacc ggggtgcggc 359
```

<210> 4219

<211> 139

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (24)

<223> n equals a,t,g, or c

<220>

3850

<221> misc feature  
<222> (29)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (76)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (96)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (111)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (114)  
<223> n equals a,t,g, or c

<400> 4219  
aaatctgctg gtttgtcctt tntnctctnt ttccctacccc tcttaataaa gtgcatgaaa 60  
agtacaggcc aacctnccac tgectnctct gctccnagaa aactcgagga ntgnctttctt 120  
ttggtttact aactgttca 139

<210> 4220  
<211> 257  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3851

<222> (34)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (43)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (104)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (155)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (209)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (224)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (233)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (234)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (252)

3852

<223> n equals a,t,g, or c

<400> 4220

```
tcgcttgagt ccaggggcct ttnactatgt ttnntactgt cangaggnat atactgaccc 60
attgcttaga agaagtggcc cgctcagga acccagccct acancgcaa atccgaaagg 120
gcaactctct ggnccctcca ggaggacccc agggntgaag gaagctgcct tgaccacatc 180
tccgcaggaa atggctcagt ccgtcaagnt gtgaaaaaag ctgnccgcgc tgnngagtcc 240
ttccaatgct gncatgg                                     257
```

<210> 4221

<211> 288

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (148)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (150)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3853

<222> (163)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (167)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (225)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (246)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (267)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (280)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (288)  
 <223> n equals a,t,g, or c

<400> 4221  
 tgctggtgna aggtgaaaag ggaacctaaa gctaaaaaagc caagaagggg aanccattga 60  
 ccgcancctg ccntgcagag aatngcagga tcccgatctg catgattcag aaaggcatga 120  
 caagagaaga ctcaccgtaa atcaaggntn aaagaaaaga agngaangtc tcgcactgtc 180  
 aaaccagtgg tggtaacaaga acggcggacc cgggtggtaa actcncaa at gctagaatta 240  
 tctctnaaga tgtcctcgaa gctgttngcc acggaaaaan cgatagtn 288

<210> 4222  
 <211> 149  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc feature  
 <222> (9)  
 <223> n equals a,t,g, or c

<220>

3854

<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (74)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (84)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (111)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (138)  
<223> n equals a,t,g, or c

<400> 4222  
ttgactttnc aaagaaacac ggctccgtcc gaccagaata aaggcncca caaaaactca 60  
ctcagggagg tggncgctgg gccncgctg gaaaacaatg catgaggggg ngcatctctt 120  
cagcttagca gngtgacnca agaggctaa 149

<210> 4223  
<211> 112  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (27)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3855

&lt;222&gt; (36)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (42)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (87)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4223

catacagaca actctataag actaccngag gaccnctac anattcanca tgacaagcga 60  
taaggatcac tataactgtc ccacaangag tacagtctat aacatagctg ga 112

&lt;210&gt; 4224

&lt;211&gt; 200

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (18)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (28)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (38)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (64)

&lt;223&gt; n equals a,t,g, or c



3856

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (158)  
<223> n equals a,t,g, or c

<220>  
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<222> (175)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (178)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (189)  
<223> n equals a,t,g, or c

<400> 4224  
attatatgtt ntaaaagncc tgattctnaa tgagggcnaa aagctggtgt atttgtgtatt 60  
gtgncgcggg ataaccctgt gtggaattgt gactggtatt tcagaagaag agaattggcaa 120  
gatgagaagc tgnataagga gatgggtaga tcataggnac caatgcataa catanatnga 180  
agatataang aagggaataa 200

<210> 4225  
<211> 102  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (33)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (57)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (60)  
<223> n equals a,t,g, or c

3857

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (98)  
<223> n equals a,t,g, or c

<400> 4225  
aactcgctac cttcggagct tttaaccttt tgnctcggct caaccatccc gagattnggn 60  
gataatggaa cgcacacaca cacaagnccc catcgcancc ac 102

<210> 4226  
<211> 135  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (23)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (46)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (85)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (102)  
<223> n equals a,t,g, or c

<400> 4226

3858

tgtgagaatg gggaaggggg ggncttaaaa ttctgtgggg gggntnttct ccaaacatag 60  
ttccaccatc gcatccccgg acccnctgc atatcgatgc tngacatcgg ggagggagta 120  
agctaccact gtctt 135

<210> 4227

<211> 180

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (21)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (58)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (103)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (147)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (158)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3859

&lt;222&gt; (171)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4227

attagatagt nttcaaggct nacagaggtg acttggggcac tttagggcgaa tctactcnaa 60  
ggtttggtat gtgnaaccca aggtatncga ttattgaaca gcnatatgat aggaatcttt 120  
tcatacagca gtcttgggat gtataanctg aactgggnca tggcgagata nttgccaaag 180

&lt;210&gt; 4228

&lt;211&gt; 212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (33)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (112)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (123)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (185)

## 3860

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (191)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (200)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (207)

<223> n equals a,t,g, or c

<400> 4228

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nngagctcaa ntgcgtgacg gctcacactt gtnaccagac tacatctgnt ttgatacatt 60
cacacacaag gtggacaaga gagtcaccaa atttgtacaa aactcacaca tnccacgtgc 120
agnactgac tctgcgggga cgcagcttct cttcccaaaa ccaaggacac ctcatgaatc 180
tcctnaccct nacgtacatn ctcgtgntgg ac 212
```

<210> 4229

<211> 145

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (30)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (98)

3861

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (130)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (131)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<400> 4229

```
tctntcaaaa tnttgggagc tttaagaacn ttgacattga aacgagctgg gaatggaaag 60
gctagcaagt atgctgggca tgcccncctga agccccnctg gacgaggata ccataaatct 120
cttgtggaan nnagaccaga cgaca                                     145
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<210> 4230

<211> 309

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (78)

<223> n equals a,t,g, or c

3862

<220>  
<221> misc feature  
<222> (208)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (231)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (274)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (302)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (303)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (307)  
<223> n equals a,t,g, or c

<400> 4230  
tnttacagcg ntcattgnatg gcttaaaacg tgacctcggc actaaagaga ttcgnaattg 60  
catgaaggag atggaacnca gatgtgcgca ttgcaccagg ctcaacaaag ctgctggcca 120  
aaggaataag gatgtccata ccgaatccgt gtgccggctg ccagaaacgt aatgaggatg 180  
aagatcacca gataagctaa tacttggnac ctatgacctg taccactttc naaatctaca 240  
gacagcaatg tgatgaaaca aatcgctgtc gtanatcaaa taaagtataa atcgcttcaa 300  
anngaanat 309

<210> 4231  
<211> 115  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3863

&lt;222&gt; (48)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (50)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (70)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (81)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4231

cactgcatct ggacttcctg aatgaggcgc tcggtnccca gctggatncn ggaacctgcc 60  
cttcctaggn acaccctagg ntaccctctg ctccttcctt gctgtgtggg gagat 115

&lt;210&gt; 4232

&lt;211&gt; 253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (9)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (11)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (22)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (30)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (47)

&lt;223&gt; n equals a,t,g, or c



3864

<220>  
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<222> (145)  
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<220>  
<221> misc feature  
<222> (170)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (196)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (204)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (208)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (217)  
<223> n equals a,t,g, or c

<400> 4232  
aagcccagnt ntccaagggtg tnagacagtn acgcaaagtgt tgtgtcnagt gccaccgtcc 60  
cagcaccacc tgtggcagga cgcagcttct ccccccaaa cccaaggcac cctatgatct 120  
ccggaccctg aggacagtg cgtgnggtga cgtgaccacg aagacccgan gtccagttca 180  
acctggaccg tggacngcat ggangtgnca taatgcnaga caagccacgg aggagcagtc 240  
aacagcacgt ccg 253

<210> 4233  
<211> 102  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (59)

3865

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (78)

<223> n equals a,t,g, or c

<400> 4233

gaagtncaatc gcttaacctg cgtggaattt tgcgaccttg tatgcaggga aacagggcnc 60

ctgaagnnga ctcttctnag atatcaacta ttgatgatat cc 102

<210> 4234

<211> 231

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (28)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (29)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (76)

<223> n equals a,t,g, or c

3866

<220>  
<221> misc feature  
<222> (121)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (157)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (224)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (225)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (229)  
<223> n equals a,t,g, or c

<400> 4234  
caagactgct thtagacgcn caattccnna taccaaagct gaaaatggct gcataaatat 60  
ttccccgtaa ttntcnaagg aaaatgatac aagactaatt acatactgat taaaaagcaa 120  
nctagaaaact tcttacatat ctctatttaa catttgnaaa gaaacaaatt gtcaggggct 180  
ctgcagacaa catnatatct cttaatcatg caaattaaat gatnnatana a 231

<210> 4235  
<211> 202  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

3867

<220>  
<221> misc feature  
<222> (44)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (69)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (145)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (156)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (164)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (185)  
<223> n equals a,t,g, or c

<400> 4235  
cctaattgan acaacttntt cagagaaacc ccttccccgg attngattga aaaggacctg 60  
gacagnatng ctgttcacag actggttatc ttctcaggaa agaacaaaaa gtacaacagg 120  
ctcttctaga aagtctggan tctgnctgga gatagncagg gagnaccagt gtagtgaagg 180  
agaanctaca tcttaagaag tg 202

<210> 4236  
<211> 103  
<212> DNA  
<213> Homo sapiens

3868

<220>  
<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (52)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (64)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (75)  
<223> n equals a,t,g, or c

<400> 4236  
ttatacatgac attgtgagaa aatgtgatgn ggcaagagtg agtaataatg anccctacaa 60  
accncagcag aantngcatc ttatcttttag aaaaaaaaga taa 103

<210> 4237  
<211> 390  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature

3869

<222> (103)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (181)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (194)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (199)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (227)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (235)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (241)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (277)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (303)

## 3870

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (356)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (357)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (384)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (385)

<223> n equals a,t,g, or c

<400> 4237

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agaagctatt ctctnacgat tnatgtgtta gccctgtgna gttaactttg tgtcggtgcc 60
taccgcatat aagataagct gaaacgctgc tggagtgtgt gcngtgccac ctttggcgct 120
tcgggctnan caggtgcaag tggactgcac cttctgcagc tctactgtgg cgtttgtggc 180
ncgaagaact cgtnacttnt gtgacgaagt ggtggctctg tgcctgnctg ccagnccctgt 240
nccatggacc cagtgtggtg aggcactctgc agegcgntag gccagcgctg catgaccgctc 300
tgncctgacc catggaccca gatctgtctc ggtggccttc cctcatgcag gtgcannccg 360
gctaataaca tgtgtggctc caanntaaaa 390
```

<210> 4238

<211> 122

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (72)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

## 3871

&lt;400&gt; 4238

tacgggggaaa cncgactcac ttttgggaaa gctgccacgc ctgcaggtag cggtccggaa 60  
ttcccggggtc tncccacgct tncgctaaag agttgctgct tttttcataa aaaaaaaaaa 120  
aa 122

&lt;210&gt; 4239

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (20)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (47)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (109)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (270)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (288)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (316)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (319)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (321)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4239



## 3872

gagggattgt gacgacgagn ttgggagagg acaacagaga aatgganaga tgtggatgga 60  
gttccttttag tctctgctct tgtgctcctc tgggggaatg tcttatacng ttttaaagga 120  
ctctgtgggc aagaaagttt gggaaacact gttccaaatg tctgcaagcc ccatgaccct 180  
attcaactcc atgacagctt ctattgatag gctctatcct cactgtaaaa attttcaatg 240  
tatgctctga tggtcactgg taaagaatgn tacggaacca gcttggtntt ctggaaactg 300  
gtaaataaca ggaacnatna ngcattaatt ctgctattgg tcactaata 349

<210> 4240

<211> 300

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (19)

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<220>

<221> misc feature

<222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (107)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (165)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (250)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (276)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (287)

<223> n equals a,t,g, or c

3873

<220>  
<221> misc feature  
<222> (288)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (290)  
<223> n equals a,t,g, or c

<400> 4240  
ggcatggcgg agccgctgnt gcgcgcggga gagggcgggc gagtcgggcg ggntcggcgc 60  
ccgcgctgag ccgcggagga ggggcngagg acgcccctgc agccggngcg tctgccctca 120  
gtgagggcggg gcgcgcggcg gacgcccccg ggcaggggcg ggagnggtgg aggcgccggc 180  
ggatggcact gacaggggcg gtgagcgagc cgctccggtc tccgggcgag gcttggcctt 240  
cctagcagan acgccgtcta ccgcaggacg ttccancgag ggaaaannan tcggatcgta 300

<210> 4241  
<211> 131  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (13)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (66)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (99)

3874

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (127)

<223> n equals a,t,g, or c

<400> 4241

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ggtacgtgat anntttggga angcccccgg tccggttttg ccgggtcgcc ccacgcgtgc 60
gaaagngatn atacatgtat ttgaacactt gatggttcna acagtcttaa atgtaatgct 120
tgggggnaag c 131
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<210> 4242

<211> 146

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (25)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (88)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (91)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

## 3875

<220>  
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<222> (132)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (140)  
<223> n equals a,t,g, or c

<400> 4242  
cncngggaac gccccctata gggtnagggtg gaacgccccgc aggtaccggt ccggaatttc 60  
cgggtcgacc caccggtccg gcgtgatnca nggtctgggg accacagtgc tgatggaggg 120  
ngaggctacc tnaagaaagn gagatg 146

<210> 4243  
<211> 300  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (1)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (109)  
<223> n equals a,t,g, or c

3876

<220>  
<221> misc feature  
<222> (273)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (287)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (293)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (296)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (298)  
<223> n equals a,t,g, or c

<400> 4243  
ncctantata gggtnagggtg gaacgccccgc aggtaccggt ccggaattnc cgggtcgacc 60  
cacgcgtccg gggctcntcg ggaccagatc cgcgagcccg tcagcctgng ccatgggctg 120  
cgacggccgc gtgtcggggc tgctccgccg caacctgcag cccacgctca cctactggag 180  
cgtcttcttc agcttcggcc tgtgcatcgc ctctctgggg cccacgctgc tggacctgcg 240  
ctgtcagacg cacagctcgc tgccccagat ctntctgggtc ttcttcncgc agnagntntg 300

<210> 4244  
<211> 318  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (15)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (28)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (49)  
<223> n equals a,t,g, or c

3877

<220>  
 <221> misc feature  
 <222> (74)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (76)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (214)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (271)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (297)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (301)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (304)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (311)  
 <223> n equals a,t,g, or c

<400> 4244  
 agggcccggt ccggnntttcc cgggtcgncc cacgcgtccg ctctgtttna gagaggccag 60  
 gctgggtttct gccntnatcc tttaacacag catcttctcc cagaggcctg aggatgggaa 120  
 aaagtgatgg agaaaagggg aacccttaag gtcaccctc agccaggggg aactgtttaa 180  
 caggggtttg tctctgccct tttgagcctt tggntttcta cctggctcag gcaccaggt 240  
 ttatgttttc tagatcaaaa ctctgcatgg nctccctgag aagactggga gaagaantt 300  
 nccntcagga ntgggatt 318

<210> 4245

<211> 206

3878

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (36)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (67)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (73)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (74)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (86)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (94)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (101)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (114)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (121)

3879

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (155)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (159)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (179)

<223> n equals a,t,g, or c

<400> 4245

```
ggctcgccctt tcacaaagag cttcaacagg ggagantggt agagggagaa gtgccccccac 60
ctgctgntca gcnnacagcct gaccnntcc catnctctgg nctctgacct tttnttcaca 120
ngggacctac ccctattgcg gtctccacgc tcatntttna cctgacctct cttcttctnc 180
ttggctttaa ttatgctaata gttgga 206
```

<210> 4246

<211> 137

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (76)



3880

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (113)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<400> 4246

```
cctnttngaa agccccgggc cggatttggc gggtcgaacc acgctgtccg gnganccttt 60
tattaggaaa tgcatntaac catgttttag atgagtgcta aaggaagctt ttnagggggc 120
ccctgncaat aaggggag                                     137
```

<210> 4247

<211> 108

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (66)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (89)

<223> n equals a,t,g, or c

<400> 4247

```
aggggtggaac gcccgcaggt accggnccgg aattnccggg tcgacccacg cgtncgggca 60
taatcngggc tcacctggac ttaagcagnc tggctggaat ccacagtg                108
```

3881

<210> 4248  
<211> 164  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (6)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (11)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (22)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (99)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (137)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (160)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (162)  
<223> n equals a,t,g, or c

<400> 4248

## 3882

accacngaca nctcggaaac gncccactat aggggttaggn ggaacgcccg caggtaccgg 60  
tccggaattc ccgggtcgac ccacgcgtcc ggtactctnt taaaattcct gtgtaaactg 120  
ggactttgcn gttcacnttc ttgtgtttca agaacagtan cncg 164

<210> 4249

<211> 196

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (21)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (34)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (111)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (133)

<223> n equals a,t,g, or c

<220>

<221> misc feature

3883

&lt;222&gt; (144)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (163)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4249

```
ggacnctgnc cntgagtcgc nccgaatccg ctcnccacgc gtcgaactgg cctacggctt 60
gtctatctgc tgatgagcta agaatttgca agacagtaca gctgcagcag ncatcactaa 120
gcagaacttc tnnagccaca catnaccaca gaatctcact ggncattgtg ctatgctctg 180
ccaatggcat gctgaa 196
```

&lt;210&gt; 4250

&lt;211&gt; 259

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (4)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (31)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (33)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (51)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (121)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

3884

<222> (138)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (152)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (196)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (200)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (209)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (247)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (249)  
<223> n equals a,t,g, or c

<400> 4250  
cccntttctc gcccatgatg aatgaggggtg ngnatgtctc gtagtacang nacgatgacc 60  
tctttccacc gtgtgctggg aaaaggcatc ggagacctgg catcgcaaag ctctctttga 120  
ngaaagatga tctcgatnca tcccgaactg angcctcatc aagaagggga agattcgtga 180  
aaccctgaag tgacctgtgn ctggtggcna gttcctaatt atgaaaggat atgcactgaa 240  
agccgtncng ataacttga 259

<210> 4251  
<211> 187  
<212> DNA  
<213> Homo sapiens

<220>  
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<222> (6)  
<223> n equals a,t,g, or c

<220>

3885

<221> misc feature  
<222> (30)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (40)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (45)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (50)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (133)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (134)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (143)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (148)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (163)  
<223> n equals a,t,g, or c

<400> 4251  
ccaccncgtc tttgactgcg tactctgtan gttgctcacn gcatntgcan acatcctatt 60  
atgtcatata atatgcagat gacataagac tatttttctaa acatcctcca tcttccacag 120  
agtgtgatgt canncctcag tgnctatntg gacttagatg ggntcactct tctctggaat 180  
gatgaga 187

<210> 4252

3886

<211> 134  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (12)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (18)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (65)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (70)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (112)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (117)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (130)  
<223> n equals a,t,g, or c

<400> 4252  
cncgtgctgac cngtccanag tccctgtagaa tgtcgttctg tctgtctctg actgcctgtc 60  
tactntggtn cgcttgggac aactagaaac ttaaacagca aatggccaag tnaacanaca 120  
ttgtgcatan gctg 134

<210> 4253  
<211> 115

3887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (7)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (41)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (79)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (84)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (102)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (105)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4253

gngactncgc cgaagcaggc ttctcgcaac tccgggagag nacaaggatg cagtgtccag 60  
gcaacatgtg tcgccaggna ggancgtgtac cttctgttcg anacnaatgc ggctg 115

&lt;210&gt; 4254

&lt;211&gt; 104

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (25)

&lt;223&gt; n equals a,t,g, or c



3888

<220>  
<221> misc feature  
<222> (39)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (48)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (77)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (84)  
<223> n equals a,t,g, or c

<400> 4254  
acattggtgg ctctatgtgg atatnatgcc tcatttcanc tgcattctnta catttactga 60  
gagctgtcat tgagccntca tcantcgcta ctggagaaca tatg 104

<210> 4255  
<211> 242  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (8)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (10)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (20)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (47)  
<223> n equals a,t,g, or c

<220>

3889

<221> misc feature  
<222> (123)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (165)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (211)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (218)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (237)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (241)  
<223> n equals a,t,g, or c

<400> 4255  
tggaccgngn aacgccccctn gggcgctcgtc cctaactcgt cattgtnttg tcgtcaagac 60  
ttgaacacta acgagatatt gcagcccttg acggagaata gagcacatag aagctcggtg 120  
acnaaagggtg agacactcac ctagaacagt gccgtgctgt gctgngaagg tgcttacaca 180  
cacaggccac atgggaaagg cccagcagcc ntaagctnct acttctccat aaagagnaca 240  
ng 242

<210> 4256  
<211> 235  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (4)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (25)  
<223> n equals a,t,g, or c

## 3890

<220>  
<221> misc feature  
<222> (37)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (78)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (87)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (118)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (142)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (162)  
<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<400> 4256  
cttncgtcga ccgatctgtg agctnagcgg agcctgnget gcccacactc catccgcgcg 60  
tacattcttc tgctctangg ctcagancac atacgacgga tagcaccaca acctgctncg 120  
gacgtcgatt gagctaagca tnggtgctgt cgtatccgctc tntgccgaag actgtgacgt 180  
gaaatgaatn tggcagtcctc tcaactcgat tcccanagcc gngactgatt gactg 235

3891

<210> 4257  
<211> 266  
<212> DNA  
<213> Homo sapiens

<220>  
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<223> n equals a,t,g, or c

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<220>

3892

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<220>  
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cgaatccnct caccacgcgt cgagctcctg tantctgggc tgtatgcctg ggtctctgga 60  
ncagtngaaa tgggagacta gnctcagctc ctatacgcac cctggagagc ggctcatctc 120  
tgatgtctag cagacctcct natagaatgg aacaactatt ggatgggtacc tgagaaccag 180  
gcagctctcac agntcctgat cattgggtcta atccngnctc cgggtcctgc aggtcantgc 240  
agtgggtatg cacanactta cactga 266

<210> 4258  
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<212> DNA  
<213> Homo sapiens

<220>  
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<220>  
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<223> n equals a,t,g, or c

<220>  
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ggggaaggna cgggggacca gttgggnaaa agggccccca tttnggggaa aaacgggccc 60  
ccgtaagaag ggaaggatnn ggagagcggc gacgaaaccg g 101

<210> 4259

3893

<211> 105  
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<222> (87)  
<223> n equals a,t,g, or c

<220>  
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<222> (91)  
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<400> 4259  
attgcttaat tgcntgggta cctttnatat caactattat ctttctggga aagttttcgt 60  
ttttctgtaa accaacctcc atngacncga naaatcattt cttaa 105

<210> 4260  
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<220>  
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<222> (58)

3894

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (69)

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<220>

<221> misc feature

<222> (91)

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<400> 4260

ccattgatct gccgcagnan tttctagaca atcggccaca atagaagctg cgtaatanat 60  
agatgaaanc attcctctgt actctttaat nccatccttg a 101

<210> 4261

<211> 314

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (29)

<223> n equals a,t,g, or c

<220>

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<222> (58)

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<222> (94)

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3895

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<220>  
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tctgccatct actgacttaa ttttcaattc tgcnaactcca tcttcaaacc ccctnanctt 120  
tccnatccta ctcttgcnat gcattgaagg gtcaatgcat ttnggggtga gctctgggtt 180  
taggggcccc ntccatccct nagctaccct ggatctttgc ccacctnttc ctcagagccc 240  
ccactgaggg gccgtagcct atctaggggt ntgggnaggag cagattggtt cctaactgtt 300



3896

ttccctngtn ttg

314

&lt;210&gt; 4262

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (54)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (70)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (90)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (92)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (94)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (158)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (166)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (202)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (210)

&lt;223&gt; n equals a,t,g, or c

3897

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<220>  
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<220>  
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 cactctgtan gcccatgggt cccttactan anangttgag tgaatttgcc ttcagttaac 120  
 atgggacett ctgttttagct tcctcttget tcccaaanat ttttaancatt ttgtaaatgt 180  
 ataaactcac ctctggtaac antggccan acctgctttg tgctaaaaac atgggaaatt 240  
 ttaagcagtc tttctcttgg aaatggatgc tattctattc tgctgcccct acttttnccg 300  
 aaggcctctt ttaaaaaaaaa aatcccnca aaaggtttct ggcacccatt ttcttanccn 360  
 ggccaatttt nt 372

<210> 4263  
 <211> 559  
 <212> DNA  
 <213> Homo sapiens

<400> 4263  
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 gaatccctgg gcaaagattt cctcactggg gttttggata acttggtgga acaaaatgta 120  
 ctgaactgga aggaagagga aaaaaagaaa tattacgatg ctaaaactga agacaaagtt 180  
 cgggtcatgg cagactctat gcaagagaag caacgtatgg caggacaaat gcttcttcaa 240  
 acctttttta acatagacca aatatcccc aataaaaaag gtgataaatt gggtcacaga 300  
 ggcagaaatc acaatttatg ttctgcaata tcctgcagct catccgaata tggaggctgg 360  
 accacctgag tcaggagaat ctacagatgc cctcaagctt tgcctcatg aagaattcct 420  
 gagactatgt aaagaaagag ctgaagagat ctatccaata aaggagagaa acaaccgcac 480  
 acggctggct ctcacatcat gcaatacaga gtttgaccat ctgcctccga ggaattgagc 540  
 tgactttgac atcacaggg 559

3898

<210> 4264  
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<212> DNA  
<213> Homo sapiens

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<222> (28)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

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<222> (97)  
<223> n equals a,t,g, or c

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<220>  
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<223> n equals a,t,g, or c

3899

&lt;400&gt; 4264

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ctagtgggtc ccccggnct gcaggggaatg gtcacngggg gtcatgcagg atgtgggtgga 120
gggacttcaa gnaataagta cgaagatgaa attaaccgcc gcacagctgc tgagaatgag 180
tttgtgggtc tgaagaagga tgtggatgct gcctacatga gcaagtggag ctggaggcca 240
aggtggatgc cctgaatgat gagatcaact tctcaggac cctcaatgag acggagttga 300
cagagctgca gtcccagatc tccgacacat ctgtggtgct gtccatggac aacagtcgct 360
ccctggacct ggacggcatc atcgctgagg tcaaggcaca gtatgaggag atggccaaat 420
gcagccgggc tgaggctgaa gcctggtacc agaccaagtt tgagaccctc caggcccagg 480
ctgggaagca tngggacgac ctccggaata cccggaatga gatttcagag atgaaccggg 540
c 541
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&lt;210&gt; 4265

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (1)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (5)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (10)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (31)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (60)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (128)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (141)

&lt;223&gt; n equals a,t,g, or c

## 3900

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<223> n equals a,t,g, or c

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<220>  
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<222> (195)  
<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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<223> n equals a,t,g, or c

<220>  
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## 3901

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<220>  
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<223> n equals a,t,g, or c

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<223> n equals a,t,g, or c

<220>  
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<220>  
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<220>  
<221> misc feature  
<222> (406)  
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<220>  
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<222> (418)  
<223> n equals a,t,g, or c

<220>

## 3902

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<220>  
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 <222> (440)  
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<400> 4265  
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 ctggagctcc accgcggtgg cggccgctct agaactagtg gatcccccg gctgcaagga 120  
 aattcgg nac aattcccagg ncacagcaaa ggtcngtnaa accccccccn ccattcccag 180  
 ttatnnggggt ccccnngaatt cctcctgttc cttnaatcag gctcngtttn ccccttagcc 240  
 actacgggna gnctctgaga gtgccgcttt acttgcatte tgcaacaatt acntgtntcc 300  
 ttnagatcct ngggccaant tccctccctc tcccagctcc tggcccctgg ggccagggcc 360  
 cctcttgctg tttttacctc tgtnccttgg ggcctactac ccaagnaagc acccgaangg 420  
 ggggangttt tggggattan aagaggaaac cttct 455

<210> 4266  
 <211> 271  
 <212> DNA  
 <213> Homo sapiens

<220>  
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<220>  
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 <222> (10)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (47)  
 <223> n equals a,t,g, or c

<400> 4266  
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 aactagtggg tccccgggc tgcaggaatt cggcacgagt gccattttta tcaaagttgt 120  
 aattttttaa aagtcaccta aaactctggt tttaaaagat cctctgtatt gaaaacttct 180  
 gataatgtat gtcattatgt cttactatt ccttaattgt agtttttaaa tattggtata 240  
 gtacttgaca gagtaaatac ttcatctgat t 271

<210> 4267  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

## 3903

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<223> n equals a,t,g, or c

<220>  
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<222> (87)  
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<222> (224)  
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<223> n equals a,t,g, or c

<220>  
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<222> (347)  
<223> n equals a,t,g, or c

<220>  
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<222> (354)  
<223> n equals a,t,g, or c

<220>  
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<222> (355)  
<223> n equals a,t,g, or c

<400> 4267  
gtcccaaaagt gctgcgattn taggtaatga aagtatggga tgctcatgtg acagcagttt 60  
gctcccaaga tgccagtga cttgtcngga agcttggtgc agacgatgta attgattaca 120  
aatctggaag tgtggaagag cagttgaaat ccttaaaacc atttgatttt atccttgata 180  
atgttgggcg atccactgaa acatgggctc cagattttct caanaaatgg tcaggagcca 240  
cctatgtgac tttggtgact cctttcctcc tgaacatgga ccgatagggc atagcagatg 300  
gcatgttgca nacaggagtc actgtagttc aaangcatta aagcatntct ggann 355

<210> 4268  
<211> 338  
<212> DNA



## 3904

<213> Homo sapiens

<220>

<221> misc feature

<222> (76)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

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<222> (271)

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<220>

<221> misc feature

<222> (290)

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<220>

<221> misc feature

<222> (330)

<223> n equals a,t,g, or c

<400> 4268

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gccgtcatct actctacat ctttgcaggc aactcatca cagcgctaag ctgcactga 60
ttttttacct gagtangcct anaaataaac atgctagctt ttattccagt tctaaccaaa 120
aaaataaacc ctggttccac agaagctgcc atcaagtatt tcctcacgca agcaaccgca 180
tccataatcc ttctaatagc ttcctcttc aacaatatac tctccggaca atgaaccata 240
accaatacta ccaaatcaat actcatcatt nataatcata atggctattn caataaaact 300
aaggaatagc cccctttcatt ctgaatcccn aaagttac 338
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<210> 4269

<211> 479

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (187)

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<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

<220>

## 3905

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<220>  
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<222> (227)  
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<220>  
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<222> (249)  
<223> n equals a,t,g, or c

<220>  
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<222> (258)  
<223> n equals a,t,g, or c

<220>  
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<222> (259)  
<223> n equals a,t,g, or c

<220>  
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<222> (324)  
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<220>  
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<222> (328)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (355)  
<223> n equals a,t,g, or c

<220>  
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<222> (360)  
<223> n equals a,t,g, or c

<220>  
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<222> (404)  
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<220>  
<221> misc feature

3906

<222> (410)  
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<220>  
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<222> (426)  
<223> n equals a,t,g, or c

<220>  
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<222> (461)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (479)  
<223> n equals a,t,g, or c

<400> 4269  
gaagctatcg ggcccatacc ccgaaatgt tggttatacc cttcccgtac taattaatcc 60  
cctggcccaa cccgtcatct actctaccat ctttgcaggc acactcatca cagcggctaa 120  
gctcgactg attttttacc tgagtaggcc tagtaaataa acatgctagc ttttattcca 180  
gttctancca aaaaaataaa ccctcgttcn acagaagctg ccacnngtt atttctcac 240  
gcaagcaanc gcatccanna tccttctaata ggctatcctc ttcaacaata tactctccgg 300  
aacaatgaaa ccataaccaa tacnaccnat caatactcat cattggataa gcatnatggn 360  
tattggcaat taaaactagg aatagcccc ctttcacttc tgantccan aaggttacc 420  
caaggnaccc cctgaaatcg ggctgcttct tctcacatga naaaaataac cccgctcan 479

<210> 4270  
<211> 376  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (359)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (366)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (372)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (374)

3907

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (376)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4270

```

cccacgcgtc cggacccacg cgtccgatca acaccctcct agccttacta ctaataatta 60
ttacattttg actaccacaa ctcaacggct acatagaaaa atccaccctt tacgagtgcg 120
gcttcgaccc tatatccccc gcccgcgctc ctttctccat aaaattcttc ttagtagcta 180
ttaccttctt attatttgat ctagaaattg ccctcctttt acccctacca tgagccctac 240
aaacaactaa cctgccacta atagttatgt catccctctt attaatcatc atcctagccc 300
taagtctggc ctatgagtga ctacaaaaag gattagactg aaccggataa aaaaagaana 360
agagangaag ananan                                     376

```

&lt;210&gt; 4271

&lt;211&gt; 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (482)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (527)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; misc feature

&lt;222&gt; (536)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 4271

```

gagtaaacad tgctcaccag atctctctac gttcagaagc attttttcat gcaatgacct 60
ctcaacacga gttgcaggac tacctcagga aaacttccca ggctgtaaaa atgcttcgag 120
ataaaaattgc acagattgat aaagtaattg gtgaaggatc actccacatt ttaagactgg 180
cacttaccag aaataattgt gttaaagtat acaataagct gaagttaatg gccactgtac 240
accagactca gcttacagta caggtgttat tatctacttc tgaatttggt ggagcattgg 300
acttaatagc aacaacacaa gaggttctac agcaggaact tcagggcatt cacagtttcc 360
ggcatttggg atcacagctt tgtgaattag aaaaactgat agataaaatg atgattgcag 420
aattttctac ttattctcac agtgacttaa atagaccact ggaagatgac tgtcaagttt 480
anaaagagga aagactaata tctcttggat ttggctttta aaccaanaaa gcttantttt 540
aa                                                    542

```

&lt;210&gt; 4272

&lt;211&gt; 611

&lt;212&gt; DNA

## 3908

<213> Homo sapiens

<220>

<221> misc feature

<222> (340)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (460)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (469)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (530)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (534)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (579)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (582)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (587)

<223> n equals a,t,g, or c

<400> 4272

```

ggaagagcac ccgctctccc tgggtgacca ggtgaccccc atcatcgacc taatggccat 60
cagcaacgct cactttgcca agctgcgcga cttcatcact ctgcgccttc cacctggctt 120
ccccgtcaaa attgagattc cccttttcca cgtgctcaat gcccgcacat ccttcagcaa 180
cctgtgtggc tgtgatgagc ccctgagctc cgtgtgggtg ccggccccca gctctgctgt 240
cgccgcacat ggggaaccctt tcccgtgcga ggtggacccc accgtgtttg aagtgcceaa 300
cggttacagc gtgctgggca tggagcgcaa cgagccctn cgggacgagg acgatgacct 360
cctgcagttc gccatccagc agagcctgct tgaagcgggc actgaggcgg agcaggtggg 420
acttgcccag ggggtgggct ctggcctctg cagacacacn gcagaagtna cagctgtggg 480

```

## 3909

ctctggtggc tgcaggtgac cgtctgggaa ggccttgacc aacacccggn ccgntgcccg 540  
gccttcttcc caggccacgg tttatgagga acagcttang cntggancgg ggccttcag 600  
gaaaagccct g 611

<210> 4273

<211> 352

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (46)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (54)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (75)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (115)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (116)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (151)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (159)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (177)

<223> n equals a,t,g, or c

<220>

<221> misc feature

## 3910

<222> (190)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (191)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (205)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (235)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (268)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (307)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (324)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (333)  
 <223> n equals a,t,g, or c

<220>  
 <221> misc feature  
 <222> (345)  
 <223> n equals a,t,g, or c

<400> 4273  
 tattggtggc atcacagctc ccacagtaag acagtactac gcttanctca ccgncacaca 60  
 gtgcaagccc gtagnaacac aatgctgggt gtttgggggc attgggtttcc tgggnngtcc 120  
 attgtttgca taaaatttgg acaagatctc ntgtctaana cccaaatact ctatgtngtg 180  
 ctttggcttn nttgcgtggc tttgnaccac tttcctctgt tcttttacgg catgnnttgg 240  
 tatgcagaac actatgggtg cactgggnaa aagacctgac ttcggaagtg tgaaagatgg 300  
 gcacctnttg gttcccgatg gatncttcct ggncatcctt aggtnaaggg ga 352

## 3911

<210> 4274  
<211> 407  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (297)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (334)  
<223> n equals a,t,g, or c

<400> 4274  
cagaaaaatat gcctcatata acatgagaga tgtcatatag gaaagactcc ctttgtatgt 60  
accgagtgcg gaaaatccta ttcacacaaa tatggcctca ttacccatca gagaattcac 120  
acaggagaga aaccttatga gtgcaatgaa tgtggaaaag ccttcaccac aaagtcagta 180  
ctcaatgtac atcaaagaac gcatacagga gagaggccgt atggatgcag tgattgtgag 240  
aaagccttct cccacttatc aaaccttgtc aaacataaga aaatgcacac aagaganatg 300  
ggtagaatca gtcaagttga aaactcctgt aatngagagt cacagtcctt tccttataag 360  
tgaactcatg cagaagaaaa ccctactagt gccgtgacta tggaaaa 407

<210> 4275  
<211> 538  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (2)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (9)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (54)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (128)  
<223> n equals a,t,g, or c

<400> 4275  
gntcgaaant aaccctcact aaaggggaaca aaagctggag ctccaccgcg gtgncggccg 60



## 3912

```

ctctagaact agtggatccc ccgggctgca ggaattcggc acgaggtaag tggcgcgatt 120
cgggcagncc ccgatggaac ctccctgggtcc tgtgagggtta cacagggaca agagaagatg 180
atgatgatgg gaccaaagga agagggaacag tcttgtgagt atgagaccag gctacctggg 240
aaccactcta ccagtcaaga gatcttccgc caacgcttca ggcattctccg ctaccaggag 300
actcctggtc cccgggaggc cttgagccaa ctacgagtac tctgctgtga gtggctgagg 360
ccagagaaac acacgaagga gcagatcctg gagttcctgg tgctggaaca attccttgacc 420
atcctgcctg aggagctcca atcctgggtg cggggacatc accctaagag tggagaggag 480
gctgtgactg tgctggagga tttagagaaa ggacttgaac cagagccgca gtcccagg 538

```

<210> 4276

<211> 300

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (231)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (262)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (271)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (275)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (282)

<223> n equals a,t,g, or c

<400> 4276

```

gcaggggaaa aaccctatgt gtgtgatagg tgtgggaagg ccttcaggaa acagctcang 60
cctcacagtg cataaaaagga tccacacagg tgaaacccca ctatgaatgt gatgagtgtg 120
ggaaggcata catctcacac tcaagtctta ttcaatcata aaagtgtcca ccaggggaaa 180
gcagccctat tattgttgaa ttgttgggaa atccttccaa ttatgaatca ntcccttgaa 240
ccagcacaaa agggatcccc cnctgggaaa naaanccttc cnaattttta gaagtttggg 300

```

## 3913

<210> 4277  
<211> 405  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc feature  
<222> (335)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (347)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (377)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (383)  
<223> n equals a,t,g, or c

<220>  
<221> misc feature  
<222> (402)  
<223> n equals a,t,g, or c

<400> 4277  
gccagggcct gagggggagg tttcctgaga actccggccc caggctggcc tgagctgccg 60  
ggcagaggcc tgtgtggcga acaggcattg ccgggcctgc agctcagagg gtcactggga 120  
ctgagggcga tctgtggcct gaaaagcaaa tgcacagtta gtgcagctcc tgaccaggcc 180  
ttcagggtgg acagaggag gatcgggtcat ggcagccaca cctgggcctg gccttgctcc 240  
gggacctgcc agaggagctg gcctggctct gtgcctgcct gcctccagga gcaggacggt 300  
ggctgggagg gtagtgactg gggacacagg tgcangtgtt agtgcangac cggaagggtg 360  
aggtggcctg gtcctcnggg ctncctggcct gggctggctg angca 405

<210> 4278  
<211> 108  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (10)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

## 3914

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4278

Asn Lys Lys Lys Asp Asn His Leu Leu Xaa Pro Val Gln Glu Asn Ala  
 1 5 10 15

Asn Ser Gly Tyr Tyr Glu Ala His Pro Val Thr Asn Gly Ile Glu Glu  
 20 25 30

Pro Leu Glu Glu Ser Ser His Glu Pro Glu Pro Glu Pro Glu Ser Glu  
 35 40 45

Thr Lys Thr Glu Glu Leu Lys Pro Gln Val Glu Glu Lys Asn Leu Glu  
 50 55 60

Glu Leu Glu Glu Lys Ser Thr Thr Pro Pro Pro Ala Glu Pro Val Ser  
 65 70 75 80

Leu Pro Gln Glu Pro Pro Lys Pro Arg Val Xaa Ala Lys Pro Glu Val  
 85 90 95

Gln Ser Gln Pro Pro Arg Val Arg Gly Thr Thr Thr  
 100 105

&lt;210&gt; 4279

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4279

Gly Phe Pro Val Leu Phe His Ser Ala Phe Met Ser Gln Leu Pro Leu  
 1 5 10 15

Ile Pro Ser Lys Leu Ser Gln Val Glu Trp Pro Asn Pro Gly Met Met  
 20 25 30

Tyr Tyr Phe Leu Gln Ser Cys Asp Cys Leu Gly Gly Pro Phe Ala Asn  
 35 40 45

Phe Pro Arg Ala His Val Cys Leu Val Val Lys  
 50 55

&lt;210&gt; 4280

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 3915

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4280

Arg	Glu	Phe	Asp	Gly	Lys	Pro	Gly	Leu	Ala	Gly	Leu	Ala	Thr	Pro	Pro
1				5				10						15	

Pro	Pro	Pro	Pro	His	Gln	Arg	His	Leu	His	Leu	His	Cys	Pro	Ala	Lys
			20					25					30		

Leu	Arg	Leu	Leu	Pro	Leu	Gln	Arg	Gln	Leu	Ala	Ser	Arg	His	Arg	Trp
		35					40					45			

Thr	Pro	Gly	Ser	Xaa	Ser	Asp	Val	Ala	Arg	Leu	Ser	Gly	Lys	Ser	Val
	50					55					60				

Leu	Pro	Leu	Pro	Ile	Ser	Met	Pro	Ser	Pro	Ser	Val	Ser	Pro	Glu	Ser
65					70					75				80	

Ala	Val	Tyr	Leu	Ile	Gly	Pro	Val	Met	Leu	Thr	Phe	Xaa	Ala	Thr	Ala
				85					90					95	

Phe	Ser	Ser	Lys	Glu	Phe	Ser	Ser	His	His	Gly	Val	Ser	Gly	Pro	Leu
			100					105					110		

Ala	Ser	Trp	Ser	Lys	Val	Gly	Leu	Gly	Gly	Arg	Tyr	Gly	Ser	Gly	Met
		115					120					125			

Cys	Tyr	Arg	Ser	Tyr	Gln	Xaa	Trp	Gly	Pro	Leu	Ser	Val	Ser	Gly	Ser
	130					135					140				

Glu	Arg	Val
145		

&lt;210&gt; 4281

&lt;211&gt; 53

## 3916

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4281

Pro Leu Trp Lys Thr Val Tyr Lys Thr Lys His Thr Val Phe Asn Ser  
 1 5 10 15

Ile Gly Ser Ile Ile Ile Val Tyr Tyr Arg Xaa Pro Leu Trp Lys Thr  
 20 25 30

Val Tyr Lys Thr Lys His Thr Val Phe Asn Ser Ile Gly Ser Ile Ile  
 35 40 45

Ile Val Tyr Tyr Arg  
 50

&lt;210&gt; 4282

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4282

Ala Leu Ile Phe His Trp Gly Ser Ala Ile Thr Lys Asn Ser Ser Asp.  
 1 5 10 15

Ile Phe Gln Leu Pro Lys Trp Pro Gly Thr Phe Cys Phe Tyr Glu Asn  
 20 25 30

Arg Phe Ile Leu Tyr Phe Pro Val Cys Leu Leu Cys Leu  
 35 40 45

&lt;210&gt; 4283

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4283

Ile Ala Ser Gly Arg Pro Phe Phe Phe Leu Ile Tyr Met Asn Leu Gln  
 1 5 10 15

Ile Ile Tyr Ile Asn Leu Leu Leu Cys Gly Asp Phe Gly Gln Glu Asp  
 20 25 30

Cys Leu Arg Pro Gly Ile Gln Asp Gln Pro Gly Lys Gln Ser Glu Thr  
 35 40 45

Leu Ser Leu Gln Lys Ile Lys Thr Lys Ile

## 3917

50

55

&lt;210&gt; 4284

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4284

Val Phe Gln His Ser His Cys Thr Ser Ala Gly Asn Leu Ser Ile Leu

1

5

10

15

Tyr Arg Gln Ser Glu Leu Lys Ser Leu Met Ser Arg Asp Tyr Gly Leu

20

25

30

Asn Lys Leu Val Cys Pro Ile Gly Gly Lys Lys Pro Arg Asn His Leu

35

40

45

Leu Lys Arg Met Ile Cys His Ile Pro Leu Asp Phe His Phe Ala Leu

50

55

60

Tyr

65

&lt;210&gt; 4285

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4285

His Arg Ile His Phe Thr Tyr Leu Thr Ser Thr Ile Ser Ser Asp Thr

1

5

10

15

Phe Ser Met Lys Gln Thr Ile Ala Ile Phe Lys Ile Met Asn Leu Ser

20

25

30

Ile Ile Leu Pro Asn Ser Phe Xaa His Leu Cys Asn Phe Ser Leu Phe

35

40

45

Leu Leu Pro Leu Pro Val Pro Ser Gln Pro Leu Ile Cys Ser Gly Asn

50

55

60

Tyr Gln Ser Ser Phe Cys His Tyr Arg Leu Ile Cys Ile Phe Lys Glu

## 3918

65                                      70                                      75                                      80

Ile Tyr Ile His Gly Thr Ile His His Leu Cys Phe Val Val  
                                     85                                      90

<210> 4286

<211> 62

<212> PRT

<213> Homo sapiens

<400> 4286

Ala Glu Val Leu Leu Glu Ala Ile Arg Lys Gly Ile Gln Leu Arg Lys  
     1                                      5                                      10                                      15

Val Glu Glu Gln Arg Glu Gln Glu Ala Lys His Glu Arg Ile Glu Asn  
                                     20                                      25                                      30

Asp Val Ala Thr Ile Leu Ser Arg Arg Ile Ala Val Glu Tyr Ser Asp  
                                     35                                      40                                      45

Ser Glu Asp Asp Ser Glu Phe Asp Glu Val Asp Trp Leu Glu  
                                     50                                      55                                      60

<210> 4287

<211> 29

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4287

Cys Arg Leu Leu Arg Arg Thr Xaa Lys Leu Gly Phe Ser Gly Arg Met  
     1                                      5                                      10                                      15

Thr Xaa Leu Arg Asp Pro Leu Gln Ala Arg Thr Lys Phe  
                                     20                                      25

## 3919

&lt;210&gt; 4288

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4288

Phe Leu Lys Glu Gly Ser Thr Pro Val Ser Asn Val Tyr Val Ser Met  
 1 5 10 15

Cys Val Cys Ala Ile His Met Tyr Ser His Glu Asp Arg His Gly Gln  
 20 25 30

Val Leu Leu Glu Glu His Ser Ser Val Thr Ser Arg Ala Thr Gly Pro  
 35 40 45

Cys Arg Ala Val Val Tyr Ile Val Gln Leu Trp Arg Trp Asn Ser Ile  
 50 55 60

Phe Thr Leu Phe Tyr Gly Ala Phe Arg Val Pro Gly Phe His Leu Arg  
 65 70 75 80

Leu Ser Val Trp Met Ala Val Phe Arg Pro Pro Leu Thr Ser Leu Pro  
 85 90 95

Ser Ile Leu Tyr Phe Gly Gly Leu Leu Ser Cys Tyr Lys Thr Phe Tyr  
 100 105 110

Gln Val Lys His Arg Tyr His Leu Cys Phe His Ser His Trp Cys Lys  
 115 120 125

Tyr

&lt;210&gt; 4289

&lt;211&gt; 345

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (156)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (186)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;



## 3920

&lt;221&gt; SITE

&lt;222&gt; (209)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (288)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (301)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4289

Glu	Ser	Asp	Gly	Met	Ala	Leu	Ile	Thr	Leu	Arg	Lys	Asn	Leu	Tyr	Arg
1				5					10					15	

Leu	Ser	Asp	Phe	Gln	Met	His	Arg	Ala	Leu	Ala	Ala	Leu	Lys	Asn	Lys
			20					25					30		

Pro	Leu	Asn	His	Val	His	Lys	Val	Val	Lys	Glu	Arg	Leu	Cys	Pro	Trp
		35					40					45			

Leu	Cys	Ser	Arg	Gln	Pro	Glu	Pro	Phe	Gly	Val	Arg	Phe	His	His	Ala
	50					55					60				

His	Cys	Lys	Lys	Phe	His	Ser	Lys	Asn	Gly	Asn	Asp	Leu	His	Pro	Leu
65					70					75					80

Gly	Gly	Pro	Val	Phe	Ser	Gln	Val	Ser	Asp	Cys	Asp	Arg	Leu	Glu	Gln
				85					90					95	

Asn	Val	Lys	Asn	Glu	Glu	Ser	Gln	Met	Phe	Tyr	Arg	Arg	Leu	Ser	Asn
		100						105					110		

Leu	Thr	Ser	Ser	Glu	Glu	Val	Leu	Ser	Phe	Ile	Ser	Thr	Met	Glu	Thr
		115					120					125			

Leu	Pro	Asp	Thr	Met	Ala	Ala	Gly	Ala	Leu	Gln	Arg	Ile	Cys	Glu	Val
	130					135					140				

Glu	Lys	Lys	Asp	Gly	Asp	Gln	Gly	Leu	Pro	Lys	Xaa	Ile	Leu	Glu	Asn
145					150					155					160

Ser	Ile	Phe	Gln	Ala	Leu	Cys	Phe	Gln	Phe	Glu	Lys	Glu	Pro	Ser	Gln
			165						170					175	

Leu	Ser	Asn	Thr	Ser	Leu	Val	Thr	Ala	Xaa	Gln	Ala	Leu	Ile	Leu	Leu
			180					185					190		

## 3921

His Val Asp Pro Gln Ser Ser Leu Leu Leu Asn Leu Val Ala Glu Cys  
 195 200 205

Xaa Asn Arg Leu Arg Lys Gly Gly Met Glu Val Arg Asn Leu Cys Ile  
 210 215 220

Leu Gly Glu Ser Leu Ile Thr Leu His Ser Ser Gly Cys Val Thr Leu  
 225 230 235 240

Glu Leu Ile Ile Asn Gln Leu Gln Gly Glu Lys Leu Glu Thr Phe Thr  
 245 250 255

Pro Glu Asp Ile Val Ala Leu Tyr Arg Ile Leu Gln Ala Cys Thr Glu  
 260 265 270

Lys Val Asp Glu His Gln Thr Phe Leu Asn Lys Ile Asn Asn Phe Xaa  
 275 280 285

Leu Ser Ile Val Ser Asn Leu Ser Pro Lys Leu Ile Xaa Gln Met Leu  
 290 295 300

Thr Ala Leu Val Val Leu Asp Gln Ser Gln Ala Phe Pro Leu Ile Ile  
 305 310 315 320

Lys Leu Gly Lys Ile Cys Arg Glu Ala Cys Pro Thr Phe His Leu Thr  
 325 330 335

Arg Ser Leu Gly Glu Ser Phe Glu Ala  
 340 345

<210> 4290

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4290

Glu Ser Pro Phe His Thr Val Glu Arg Cys Arg Cys Gly Lys Pro Gln  
 1 5 10 15

## 3922

Arg Trp Leu Pro Ile Leu Asn Pro Phe Ile Ser His Leu Ser Phe Phe  
                   20                  25                  30

Ser Pro Phe Cys Pro Asp Val Ala Met Val Gly Trp Val Arg Pro Glu  
                   35                  40                  45

Glu Thr Ala Ser Xaa Arg Gly Ser Ser Arg Ser Gly Gly Ser Ala Gly  
                   50                  55                  60

Ile Gly Ala His Arg Ser Glu Glu Trp Pro Met Xaa Leu Pro Ser Lys  
                   65                  70                  75                  80

Cys Ala

&lt;210&gt; 4291

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4291

Leu Ser Ile Cys Ile Ile Asn Ile Ile Met Met Phe Phe Ser Cys Ser  
                   1                  5                  10                  15

Phe Gln Gly Leu Ser His Leu Lys Lys Leu Leu Leu Thr Lys Leu Leu  
                   20                  25                  30

Thr Leu Phe Pro Leu Met Ile Gln Val Ser Val Pro Ala Leu Tyr Val  
                   35                  40                  45

Asn Tyr Gln Asn Ser Pro Ala Ser Glu His Asp Ile Tyr Asn Arg Arg  
                   50                  55                  60

Tyr Xaa Asn Lys Met Xaa Xaa Leu

## 3923

65

70

&lt;210&gt; 4292

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4292

His Ile Asn Asn Ile Lys Met Ala Ile Pro Phe Tyr Gly Val Thr Leu

1

5

10

15

Phe Leu Gly Ile Val Ser Lys Glu Ile Ile Leu Asn Ile Gly Lys Lys

20

25

30

Tyr Phe Tyr Asn Leu Gln Ser Val

35

40

&lt;210&gt; 4293

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4293

Ala Val Ala Leu Met Ala Pro Pro Ser Gly Met Ile Arg Val Thr Ala

1

5

10

15

Xaa Arg Gly Ser Phe Glu Trp Arg Pro Ala Gly Gly Asp Pro Asn Arg

20

25

30

Arg Ala Gly Arg Arg Pro Phe Ser Arg Glu Gly Pro Ile Trp Arg Lys

35

40

45

Ser Ser Arg Leu Val Lys Leu Gly Gly Arg

50

55

&lt;210&gt; 4294

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 3924

&lt;400&gt; 4294

Pro Tyr Arg Ser Ser Lys Asn Ser Met Pro Phe Arg Leu Ala His Tyr  
 1 5 10 15

Gln Lys His His Glu Ser Ile Leu Lys Thr Asn Tyr Leu Leu Gln Cys  
 20 25 30

Ile Ser Leu Val Leu Cys Val  
 35

&lt;210&gt; 4295

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4295

Gly His Ile Phe Ser Leu Lys Ser Asp Ile Leu Ser Leu Leu Leu Ser  
 1 5 10 15

His Tyr Cys His Thr Phe Val Phe Phe Val Val Ile Val Trp Val Glu  
 20 25 30

Gln Leu Gln Glu Thr Leu Lys Pro Leu Asp Ile Lys Glu Ile Cys Leu  
 35 40 45

Leu Ile Phe Lys Ser Phe Leu Ser Lys Ser Trp Asp Thr His Gly Ser  
 50 55 60

Cys Leu Gly Asn Phe Pro Cys Cys Tyr Arg Ala Ala Thr Lys Trp Glu  
 65 70 75 80

Leu Thr Arg Arg Ala Val Tyr Thr Val Ser Leu Ala Thr Val Ala Xaa  
 85 90 95

Gly Ser Gly Ile Trp Leu Thr Gly  
 100

&lt;210&gt; 4296

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 3925

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4296

Glu Val Asp Leu Gly Val Ser Trp Arg Val Ser Leu Leu Val Ala Gly  
1 5 10 15

Gly Arg Asp Ser Trp Leu Trp Gly Trp Arg Glu Val Val Gly Arg Lys  
20 25 30

Arg Gly Cys Val Pro Ala Thr Arg Ile Cys Ile Pro Glu Pro Lys Pro  
35 40 45

Gly Gly Ile Ser Leu Arg Gln His His Pro Arg Glu Ile Cys His Asn  
50 55 60

Leu Arg Phe Thr Ala Xaa Asp Ala Glu Ala  
65 70

&lt;210&gt; 4297

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4297

Gln Val Gln Ala Ala Glu Gln Pro Lys Pro Leu Leu Cys Leu Trp Ser  
1 5 10 15

Arg His Ser Leu Phe Leu Cys Phe Leu Asp Glu Leu Ala Phe Thr Leu  
20 25 30

Leu Tyr Gly Leu Ala Pro Asn Ser Leu Leu Arg Glu Ile Gln Glu Pro  
35 40 45

Ser Phe Gly Ser Ala  
50

&lt;210&gt; 4298

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

## 3926

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4298

Ser	Asn	Val	Pro	Lys	Thr	Ser	Lys	Gln	Asn	Leu	Ile	Pro	Xaa	Lys	Tyr
1				5				10						15	

Ala	Leu	Phe	Leu	Leu	Ile	Cys	Phe	Val	Leu	Gln	Leu	Arg	Ser	Lys	Ser
			20					25					30		

Leu	Val	Lys	Leu	Tyr	Tyr	Leu	Pro	Lys	Tyr	Lys	Arg	Xaa	Leu	Glu	Leu
		35					40					45			

His	Cys	Asn	Ile	Asp	Val	Leu
	50					55

<210> 4299

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4299

Met	Gly	Gly	Leu	Ile	Ala	Leu	Ala	Arg	Glu	Ala	Ala	Gly	Lys	Glu	Asp
1				5				10					15		

Arg	Trp	His	Pro	Glu	Thr	Ala	Gln	Xaa	Trp	Asn	Arg	Thr	Pro	Xaa	Val
			20				25						30		

Gln	Gly	Leu	Lys	Phe	His	Gly	Leu	Val
		35					40	

<210> 4300

<211> 79

## 3927

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4300

Gln	Ala	Ala	Ala	Arg	Gly	His	Pro	His	Pro	Ala	Phe	Xaa	Arg	Gln	Phe
1				5					10					15	

Asp	Arg	Gly	Glu	Arg	Gly	Pro	Ala	Gly	Leu	Leu	Leu	Cys	Trp	Ala	Trp
			20					25					30		

Gln	Pro	Pro	Pro	Glu	Lys	Met	Glu	Phe	Arg	Thr	Ala	Ser	Ile	Arg	Leu
			35				40					45			

Phe	Gly	His	Leu	Thr	Arg	Ser	Ala	Thr	Glu	Thr	Val	Arg	Thr	Ser	Ser
	50					55					60				

Trp	Thr	Lys	Trp	Trp	Ala	Gly	Trp	Arg	Pro	Ala	Ala	Ala	Pro	Xaa
65					70				75					

&lt;210&gt; 4301

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



## 3928

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4301

Thr Ser Ser Leu Leu Gln Ala His Ser Leu Ile Glu Ser Leu Val Ile  
 1 5 10 15

Asn Leu Leu Asn Ala Xaa Xaa Ala Ala Asn Leu Gly Lys Leu Leu Ser  
 20 25 30

Trp Trp Gly His Cys Trp Ile Asn Asn Val Arg Tyr Glu Leu Ser Asp  
 35 40 45

Ala Leu Thr Trp Ile Leu His Phe Lys Val Xaa Xaa Gly Ala Tyr Gly  
 50 55 60

Gln Pro Thr  
 65

&lt;210&gt; 4302

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4302

Pro Asp Gln Pro Tyr Glu Trp Leu Ser Tyr Lys Gln Val Ala Glu Leu  
 1 5 10 15

Ser Glu Cys Ile Gly Ser Ala Leu Ile Gln Lys Gly Phe Lys Thr Ala  
 20 25 30

Pro Asp Gln Phe Ile Gly Ile Phe Ala Gln Asn Arg Pro Glu Trp Val  
 35 40 45

Ile Ile Glu Gln Gly Cys Phe Ala Tyr Ser Met Val Ile Val Pro Leu  
 50 55 60

Tyr Asp Thr Leu Gly Asn Glu Ala Ile Thr Tyr Ile Val Asn Lys Ala  
 65 70 75 80

Glu Leu Ser Leu Val Phe Val Asp Lys Pro Glu Lys Ala Lys Leu Leu  
 85 90 95

Leu Glu Gly Val Glu Asn Lys Leu Ile Pro Gly Leu Lys Ile Ile Val  
 100 105 110

Val Met Asp Ala Tyr Gly Ser Asn Trp Trp Asn Glu Ala Arg Gly Val

## 3929

115                                      120                                      125  
 Gly Trp Lys Ser Pro Ala  
 130

<210> 4303  
 <211> 355  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (347)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4303  
 Cys Ile Ser Leu Xaa Pro Asn Ile Ser Leu Arg His Leu Trp Pro Gln  
 1                                      5                                      10                                      15  
 Arg Met Cys Pro Ser Gly Val Val Met Ile Thr Trp Gly Met Ser Arg  
 20                                      25                                      30  
 His Pro Gln Val Leu Gln Ala Thr Gln Glu Thr Leu Gln Arg His Gly  
 35                                      40                                      45  
 Ala Gly Ala Gly Gly Thr Arg Asn Ile Ser Gly Thr Ser Lys Phe His  
 50                                      55                                      60  
 Val Glu Leu Glu Gln Glu Leu Ala Glu Leu His Gln Lys Asp Ser Ala  
 65                                      70                                      75                                      80  
 Leu Leu Phe Ser Ser Cys Phe Val Ala Asn Asp Ser Thr Leu Phe Thr  
 85                                      90                                      95  
 Leu Ala Lys Ile Leu Pro Gly Cys Glu Ile Tyr Ser Asp Ala Gly Asn  
 100                                      105                                      110  
 His Ala Ser Met Ile Gln Gly Ile Arg Asn Ser Gly Ala Ala Lys Phe  
 115                                      120                                      125  
 Val Phe Arg His Asn Asp Pro Asp His Leu Lys Lys Leu Leu Glu Lys  
 130                                      135                                      140  
 Ser Asn Pro Lys Ile Pro Lys Ile Val Ala Phe Glu Thr Val His Ser

## 3930

145		150		155		160
Met Asp Gly Ala	Ile Cys Pro Leu Glu Glu Leu Cys Asp Val Ser His					
	165		170		175	
Gln Tyr Gly Ala	Leu Thr Phe Val Asp Glu Val His Ala Val Gly Leu					
	180		185		190	
Tyr Gly Ser Arg	Gly Ala Gly Ile Gly Glu Arg Asp Gly Ile Met His					
	195		200		205	
Lys Ile Asp Ile	Ile Ser Gly Thr Leu Gly Lys Ala Phe Gly Cys Val					
	210		215		220	
Gly Gly Tyr Ile	Ala Ser Thr Arg Asp Leu Val Asp Met Val Arg Ser					
	225		230		235	240
Tyr Ala Ala Gly	Phe Ile Phe Thr Thr Ser Leu Pro Pro Met Val Leu					
	245		250		255	
Ser Gly Ala Leu	Glu Ser Val Arg Leu Leu Lys Gly Glu Glu Gly Gln					
	260		265		270	
Ala Leu Arg Arg	Ala His Gln Arg Asn Val Lys His Met Arg His Tyr					
	275		280		285	
Ser Trp Thr Gly	Ala Phe Leu Ser Ser Pro Ala Pro Ala Thr Ser Ser					
	290		295		300	
Pro Ser Gly Trp	Ala Met Gln His Ser Thr Ala Ser Ser Val Ile Ser					
	305		310		315	320
Cys Ser Pro Ser	Met Ala Ser Met Cys Arg Pro Ser Thr Thr Gln Leu					
	325		330		335	
Ser Pro Gly Val	Lys Ser Ser Cys Ala Trp Xaa Pro Pro Pro Thr Thr					
	340		345		350	
Ala Leu Arg						
	355					

&lt;210&gt; 4304

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

## 3931

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4304

Thr	Lys	Glu	Lys	Lys	Asn	Arg	Gln	Gly	Asn	Ser	Leu	Asp	Met	Ala	Ser
1				5					10					15	

Glu	Ile	His	Met	Thr	Gly	Pro	Met	Cys	Leu	Ile	Glu	Asn	Thr	Asn	Gly
			20					25					30		

Arg	Leu	Met	Ala	Asn	Pro	Glu	Ala	Leu	Lys	Ile	Leu	Ser	Ala	Ile	Thr
		35					40					45			

Gln	Pro	Met	Val	Val	Val	Ala	Ile	Val	Gly	Leu	Tyr	Arg	Thr	Gly	Lys
	50					55					60				

Ser	Tyr	Leu	Met	Asn	Lys	Leu	Ala	Gly	Lys	Lys	Lys	Gly	Phe	Ser	Leu
65					70					75					80

Gly	Ser	Thr	Val	Gln	Ser	His	Thr	Lys	Gly	Xaa	Trp	Met	Trp	Cys	Val
				85					90					95	

Pro	His	Pro	Lys	Lys	Pro	Gly	His	Ile	Leu	Val	Leu	Leu	Asp	Thr	Glu
			100					105					110		

Gly	Leu	Gly	Asp	Val	Glu	Lys	Gly	Asp	Asn	Gln	Asn	Asp	Ser	Trp	Ile
		115					120					125			

Phe	Ala	Leu	Ala	Val	Leu	Leu	Xaa	Ser	Xaa	Phe	Xaa	Tyr	Asn	Ser	Ile
	130						135				140				

Gly	Thr	Ile	Asn	Gln	Gln	Ala	Met	Asp	Gln	Leu	His	Tyr	Gln	Ser	Arg
145					150					155					160

Ser

## 3932

&lt;210&gt; 4305

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4305

Val	Leu	His	Ser	Val	Leu	Gly	Gly	Trp	Leu	Gly	Pro	Gly	Ala	Val	Ala
1				5					10					15	

Ser	Gln	Gly	Ala	Ala	Ser	Pro	Trp	Gln	Ala	Ser	Leu	Pro	Trp	Ala	Ala
			20					25						30	

Leu	Pro	Gln	Thr	Pro	Asp	His	Pro	Leu	Gly	Pro	Val	Pro	His	Gln	Ser
		35					40					45			

Pro	Ser	Ser	Cys	Leu	Trp	Gly	Ser	His	His	Gly	Val	Arg	Ala	Val	His
	50					55					60				

Ser	Ala	Ser	Gln	Cys	Val	Ser	Pro	Gly	Thr	Trp	Glu	Gly	Arg	Glu	His
65					70					75					80

Trp	Gly	Leu	Gly	Pro	Gln	Leu	Arg	Gly	Cys	Leu	Ala	Leu	Pro	Ser	Asp
				85					90						95

Xaa	Ala	Tyr	Pro	Glu	Phe	Gly	Gly	Tyr	Phe	Pro	Leu	Ala
			100					105				

&lt;210&gt; 4306

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4306

Leu	Phe	Leu	Ser	Ser	Pro	Gly	Leu	Glu	Arg	Val	Thr	Met	Leu	Phe	Leu
1				5					10					15	

Gly	Leu	His	Asn	Val	Arg	Gln	Thr	Ser	Met	Phe	Pro	Arg	Asp	Pro	Lys
			20					25					30		

Arg	Leu	Thr	Pro
			35

## 3933

&lt;210&gt; 4307

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4307

Gly	Gln	Pro	Glu	Val	Thr	Phe	Ile	Ala	Ile	Leu	Val	Leu	Val	Ser	Phe
1				5					10					15	

Phe	Thr	Ala	Ala	Cys	Phe	Ile	Ile	Lys	Val	Phe	Ile	Thr	Cys	Ile	Leu
		20						25					30		

Cys	Arg	Pro	Pro	Val	Ser	Ser	Cys	Asp	Leu	Glu	Cys	Leu	Thr	Ser	Trp
		35					40					45			

Glu	Cys	Ser	Pro	Val	Gly	Leu	Ser	Leu	Ile	Leu	Leu	His	Pro	Leu	Ile
	50					55					60				

Gln	Asp	Gly	Ser	Phe	Ser	Gly	Phe	Gln	Thr	Thr	Pro	Gly	His	Val	Phe
65					70					75					80

Pro	Pro	Pro	Phe	Leu	Gln	Gln	Xaa	Pro
				85				

&lt;210&gt; 4308

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4308

Met	Phe	Leu	Ile	Val	Phe	Cys	Phe	Leu	Gln	Ser	Leu	Ser	Ala	Met	Pro
1				5					10					15	

Ile	Val	Leu	Ile	Phe	Tyr	Arg	Ser	Ser	Leu	Lys	Ile	Leu	Asn	Arg	Gly
		20						25					30		

Ile	Gly	Ser	Gly	Gln	Ser	Glu	Trp	Leu	Glu	Phe	Trp	Leu	Ser	Lys	Lys
		35					40					45			

Asn	Phe	Ile	Leu	His	Lys	His	Val	Val	Arg	Ser	Phe	Cys	Ala	Tyr	Ala
	50					55					60				

## 3934

Ala Trp Ile Gly Cys  
65

<210> 4309

<211> 74

<212> PRT

<213> Homo sapiens

<400> 4309

Ser Phe Leu Phe His Tyr Phe Cys Tyr Phe Lys Cys Ile Ser Ser Gly  
1 5 10 15

Ile Leu Phe Gly Ala Ile Pro Thr Lys Ser Gly Thr Arg Met Cys Leu  
20 25 30

Arg Ala Val Thr Phe Gln His Asp Gly Phe Gly Leu Val Trp Phe Cys  
35 40 45

Val Leu Phe Ile Cys Ser Phe Phe Cys Cys Asn Arg Lys Trp Leu Gly  
50 55 60

Ser Leu Arg Trp Tyr Val Thr Asn Ser Phe  
65 70

<210> 4310

<211> 171

<212> PRT

<213> Homo sapiens

<400> 4310

Met Leu Ser Pro Pro Arg Thr Thr Thr Gly Ser Met Thr Ser Trp Gly  
1 5 10 15

Thr Cys Gly Ser Gly Gln His His Arg Thr Arg Leu Leu Ser Arg Thr  
20 25 30

Cys Ala Ser Ser Gly Gly His Pro Gly Ser Thr Gln Leu Met Ala Leu  
35 40 45

Pro Ile Thr Gly Pro Gly Ser Pro Pro Gly Trp Ala Thr Leu Gln Ile  
50 55 60

Gln Pro Gln Thr Thr Ser Val Ser Ala Val Leu Gln Thr Gln Ala Gly  
65 70 75 80

Arg Gln Gly Ser Cys Lys Gln Pro Gly Gly Asp Lys Glu Lys Ser Leu  
85 90 95

## 3935

Leu Gly Ser Leu Ser Phe Pro Gly His Val Ala Asn Ser Ala Ile Pro  
                   100                  105                  110  
 Ser Ser Arg Ala Ser Ala Ser Gly Lys Asn Phe Pro Phe Pro Val Ser  
                   115                  120                  125  
 His Pro Ser Val Ala Gly Ala Ser His Gln Gly Arg Arg Gly Leu Ser  
                   130                  135                  140  
 Leu Leu Cys Phe Gly Glu Gly Ala Gln Cys Val Leu Thr Met Ala Gly  
                   145                  150                  155                  160  
 Gly Gln Val Phe Leu Leu Glu Ala Lys Tyr Tyr  
                   165                  170

&lt;210&gt; 4311

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4311

Ser Ser His Leu Ser Leu Asn Glu Ala Val Val Ile Ser Gly Arg Lys  
           1                  5                  10                  15  
 Leu Ala Gln Gln Ile Lys Gln Glu Val Arg Gln Xaa Val Glu Asp Gly  
                   20                  25                  30  
 Val Gly Ser Arg Gln Gln Thr Ala Thr Pro Glu Cys  
                   35                  40

&lt;210&gt; 4312

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4312

Arg Phe Lys Ser Arg Leu Ser Ile Leu Leu Ser Ile Leu Phe His Phe  
           1                  5                  10                  15  
 Lys Lys Lys Gly Phe Gly Ile Cys Gln Pro Leu Leu Ser Leu Leu Tyr  
                   20                  25                  30



## 3936

Lys Ala Thr Ala Leu Val Leu Asp Ile Met Pro Gly Leu Ile Ser Gln  
                   35                                  40                                  45

Thr Ser Gly Leu Asn Gln Val His Ala Trp Leu Leu Lys Lys Leu Met  
           50                                  55                                  60

Leu Ile Pro Lys Ser Ala Gln Ser Gln Pro  
       65                                  70

<210> 4313

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4313

Ala Gln Val Asp Phe Arg Arg Thr Pro Ile Asp Ser Thr Ala Ala Pro  
       1                                  5                                  10                                  15

Gly Ala Gln Thr Pro Ala Ala Arg Ser Lys Ala Arg Ser Cys Cys Ser  
                   20                                  25                                  30

His Val Gly Pro Gln Pro Pro His Ser Gly Pro Ala His Gly Xaa Pro  
           35                                  40                                  45

Pro Ala Ser Cys Gln Gln Gly Leu Gly Asn Phe Ser Pro Gly Cys Arg  
       50                                  55                                  60

Ala Leu Ser Arg Trp Pro Cys Ser Trp Ser Ser Leu Gln Ser Pro Leu  
       65                                  70                                  75                                  80

Gln Ser Thr Thr Ser Gly Ala Arg Arg Ser Arg Xaa Trp Glu Ser Trp  
                   85                                  90                                  95

Trp Gly Thr Asp Trp Lys Val  
                   100

## 3937

&lt;210&gt; 4314

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (71)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4314

Pro	Arg	Pro	Arg	Gly	Ala	Gly	Ala	Met	Val	Arg	Gly	Arg	Xaa	Phe	Arg
1				5					10					15	

Leu	Ser	Val	Arg	Asp	Val	Arg	Phe	Pro	Thr	Ser	Leu	Gly	Gly	His	Gly
			20					25					30		

Ala	Asp	Ala	Met	His	Thr	Asp	Pro	Asp	Tyr	Ser	Ala	Ala	Tyr	Val	Val
		35					40					45			

Ile	Glu	Thr	Asp	Ala	Glu	Asp	Gly	Ile	Lys	Gly	Cys	Gly	Ile	Thr	Phe
	50					55					60				

Thr	Leu	Gly	Lys	Gly	Thr	Xaa	Val	Val	Val	Cys	Xaa	Val	Asn	Ala	Leu
65					70					75					80

Ala	His	His	Val	Leu	Asn	Lys	Asp	Leu	Lys	Asp	Ile	Val	Gly	Asp	Phe
				85					90					95	

Arg	Gly	Phe	Tyr	Arg	Gln	Leu	Thr	Ser	Asp	Gly	Gln	Leu	Arg	Trp	Ile
			100					105					110		

Gly	Pro	Glu	Lys	Gly	Val	Val	His	Leu	Ala	Thr	Xaa	Pro	Ser
			115				120					125	

## 3938

&lt;210&gt; 4315

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4315

Trp Ile Lys Asp Leu Asn Val Arg Pro Glu Ser Met Lys Leu Leu Glu  
 1 5 10 15

Glu Asn Ile Trp Glu Thr Leu Gln Tyr Pro Gly Leu Gly Glu Asp Phe  
 20 25 30

Met Glu Lys Thr Ser Lys Ala  
 35

&lt;210&gt; 4316

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4316

Ala Pro Ala Gly Leu Arg Arg Ser Pro Trp Arg Cys Gly Ala Ile Gly  
 1 5 10 15

Gly Asp Gly Arg Gly Arg Gly Ala Ser Thr Val Ser His Pro Pro Leu  
 20 25 30

Ala Thr Leu Ile Phe Leu Leu His Leu Gly Pro Gly Ala Ser Ser Thr  
 35 40 45

Thr Gln Ala Gly Cys Phe Lys Lys Asn Cys Phe Leu Lys Cys Leu Ser  
 50 55 60

Leu Lys Glu Ile Ser Leu Thr Leu Glu Val Xaa Gly Ala Ser Ser Gln  
 65 70 75 80

Tyr Thr Ser Cys

&lt;210&gt; 4317

&lt;211&gt; 209

## 3939

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4317

Trp	Xaa	Cys	Ile	Leu	Asn	Ile	Leu	Lys	Gly	Tyr	Asn	Phe	Ser	Arg	Glu
1				5					10					15	

Ser	Val	Glu	Ser	Pro	Glu	Gln	Lys	Gly	Leu	Thr	Tyr	His	Arg	Ile	Val
		20						25					30		

Glu	Ala	Phe	Arg	Phe	Ala	Tyr	Ala	Lys	Arg	Thr	Leu	Leu	Gly	Asp	Pro
	35						40					45			

Lys	Phe	Val	Asp	Val	Thr	Glu	Val	Val	Arg	Asn	Met	Thr	Ser	Glu	Phe
	50					55					60				

Phe	Ala	Ala	Gln	Leu	Arg	Ala	Gln	Ile	Ser	Asp	Asp	Thr	Thr	His	Pro
65					70					75					80

Ile	Ser	Tyr	Tyr	Lys	Pro	Glu	Phe	Tyr	Thr	Pro	Asp	Asp	Gly	Gly	Thr
				85					90					95	

Xaa	His	Leu	Ser	Val	Val	Ala	Xaa	Asp	Gly	Ser	Ala	Val	Ser	Ala	Thr
		100						105					110		

Ser	Thr	Ile	Asn	Leu	Tyr	Phe	Gly	Ser	Lys	Val	Arg	Ser	Pro	Val	Ser
		115					120					125			

Gly	Ile	Leu	Phe	Asn	Asn	Glu	Met	Asp	Asp	Phe	Ser	Ser	Pro	Ser	Ile
	130					135					140				

Thr	Asn	Glu	Phe	Gly	Val	Pro	Pro	His	Leu	Pro	Ile	Ser	Ser	Ser	Gln
145					150					155					160

Gly	Ser	Ser	Arg	Ser	Arg	Pro	Cys	Ala	Arg	Arg	Ser	Trp	Trp	Ala	Arg
				165					170					175	

## 3940

Thr Ala Arg Ser Gly Trp Trp Trp Glu Leu Leu Gly Ala His Arg Ser  
                   180                  185                  190

Pro Arg Pro Leu His Trp Pro Ser Ser Thr Thr Ser Gly Ser Ala Met  
           195                  200                  205

Thr

<210> 4318

<211> 47

<212> PRT

<213> Homo sapiens

<400> 4318

Met Phe Asn Glu Leu Glu Asn Asp Ser Trp Val Val Asn Ile Val Asn  
       1                  5                  10                  15

Val Asp Glu Leu Phe Ser Phe Ala Glu Ser Ser Tyr Phe Val Gly Gly  
                   20                  25                  30

Phe Asn Ser Ala Trp Gln Phe Ala Ala Phe Leu Val Val Leu Leu  
           35                  40                  45

<210> 4319

<211> 297

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (183)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4319

Pro Leu Pro Pro Gln Leu Gln Thr Pro Pro Arg Ser Asn Ser Val Phe  
       1                  5                  10                  15

Ala Val Asn Gln Ala Val Ser Pro Asn Phe Ser Gln Gly Ser Ala Ile  
                   20                  25                  30

## 3941

Ile Ile Ala Ser Pro Val Gln Pro Val Leu Gln Gly Met Val Gly Met  
 35 40 45  
 Ile Pro Val Ser Val Val Gly Gln Asn Gly Asn Asn Phe Ser Thr Pro  
 50 55 60  
 Pro Arg Gln Val Leu His Met Pro Leu Thr Ala Pro Val Cys Asn Arg  
 65 70 75 80  
 Ser Ile Pro Gln Phe Pro Val Pro Pro Lys Ser Gln Lys Ala Gln Gly  
 85 90 95  
 Leu Arg Asn Lys Pro Cys Ile Gly Xaa Gln Val Asn Asn Leu Val Asp  
 100 105 110  
 Ser Ser Gly His Ser Val Gly Cys His Ala Gln Lys Thr Glu Val Ser  
 115 120 125  
 Asp Lys Ser Ile Ala Thr Asp Leu Gly Lys Lys Ser Glu Glu Thr Thr  
 130 135 140  
 Val Pro Phe Pro Glu Glu Ser Ile Val Pro Ala Ala Lys Pro Cys His  
 145 150 155 160  
 Arg Arg Val Leu Cys Phe Asp Ser Thr Thr Ala Pro Val Ala Asn Thr  
 165 170 175  
 Gln Gly Pro Asn His Lys Xaa Val Ser Gln Asn Lys Glu Arg Asn Ala  
 180 185 190  
 Val Ser Phe Pro Asn Leu Asp Ser Pro Asn Val Ser Ser Thr Leu Lys  
 195 200 205  
 Pro Pro Ser Asn Asn Ala Ile Lys Arg Glu Lys Glu Lys Pro Pro Leu  
 210 215 220  
 Pro Lys Ile Leu Ser Lys Ser Glu Ser Ala Ile Ser Arg His Thr Thr  
 225 230 235 240  
 Ile Arg Glu Thr Gln Ser Glu Lys Lys Val Ser Pro Thr Glu Ile Val  
 245 250 255  
 Leu Glu Ser Phe His Lys Ala Thr Ala Asn Lys Glu Asn Glu Leu Cys  
 260 265 270  
 Ser Asp Val Gly Lys Thr Glu Lys Ser Arg Lys Phe Lys Thr Ile Tyr  
 275 280 285  
 Trp Ala Ala Lys Trp Gly Phe Ala Lys  
 290 295

## 3942

&lt;210&gt; 4320

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4320

Trp	Xaa	Pro	Arg	Ala	Ala	Gly	Ile	Arg	His	Glu	Leu	Glu	Ser	Phe	Ala
1				5				10						15	

Val	Pro	Asn	Leu	Trp	Lys	Ser	Glu	Asp	Ile	Thr	Gln	Ile	Val	Ala	Asn
		20					25					30			

Tyr	Gly	Leu	Ile	Cys	Xaa	Thr	Arg	Ala	Gly	Asn	Asp	Ala	Gln	Lys	Phe
	35						40					45			

Ile	Tyr	Glu	Ser	Asp	Val	Leu	Trp	Lys	His	Arg	Ser	Asn	Ile	His	Val
	50					55					60				

Val	Asn	Glu	Trp	Xaa	Ala	Asn	Asp	Ile	Ser	Ser	Thr	Lys	Ile	Arg	Arg
65					70					75				80	

Ala	Leu	Arg	Arg	Gly	Gln	Ser	Ile	Arg	Tyr	Leu	Val	Pro	Asp	Leu	Val
				85				90						95	

Gln	Glu	Tyr	Ile	Glu	Lys	His	Asn	Leu	Tyr	Ser	Ser	Glu	Ser	Glu	Asp
		100						105					110		

Arg	Asn	Ala	Gly	Val	Ile	Leu	Ala	Pro	Leu	Gln	Arg	Asn	Thr	Ala	Glu
	115					120						125			

Ala	Lys	Thr
	130	

## 3943

&lt;210&gt; 4321

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4321

Asp His Pro Arg Thr Ile Ser Ser Arg Ile Leu Gln Trp Leu Asp Glu  
 1 5 10 15

Glu Leu Pro Asp Leu Ser Val Ser Arg Arg Ser Ser His Leu His Trp  
 20 25 30

Gly Ile Pro Val Pro Gly Asp Asp Ser Gln Thr Ile Tyr Val Trp Leu  
 35 40 45

Asp Ala Leu Val Asn Tyr Leu Thr Val Ile Gly Tyr Pro Asn Ala Glu  
 50 55 60

Phe Lys Ser Trp Trp Pro Ala Thr Leu Ile Ser  
 65 70 75

&lt;210&gt; 4322

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4322

Ser Met Trp Gly Lys Glu Arg Ser Asp Cys Tyr Cys Val Cys Val Glu  
 1 5 10 15

Lys Glu Asp Ile Arg Asn Ser Ile Leu Ile Cys Thr Lys Lys Asn Cys  
 20 25 30

Phe Cys Phe Glu Met Leu Leu Ala Tyr Asn Phe Ser Pro Asn Ser Val  
 35 40 45

Leu Thr Glu Thr Cys Ala Val Met Asp Gln Ser Leu Met Asp Leu Gly  
 50 55 60



## 3944

Leu Cys Arg Met Cys Leu Val Asn Asn Met Phe Gly Arg Arg Xaa Ala  
 65 70 75 80

Leu Gly Arg Ser His Arg Pro Phe Xaa His Ser Pro Val  
 85 90

<210> 4323

<211> 133

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4323

Pro Ala Gly Pro Gly Gln Lys Pro Asp Pro Gly Lys Leu Pro Ala Ala  
 1 5 10 15

Gly Val Leu Arg Ile Xaa Arg Gly Ser Ser Gly Leu Trp Lys Lys Arg  
 20 25 30

Arg Ala Thr Asp Phe Gly Arg Gly Arg Ala Gly Leu Ser Ala Ala Met  
 35 40 45

Ser Ala Lys Ala Ile Ser Glu Gln Thr Gly Lys Glu Leu Leu Tyr Lys  
 50 55 60

Phe Ile Cys Thr Thr Ser Ala Ile Gln Asn Arg Phe Lys Tyr Ala Arg  
 65 70 75 80

Val Thr Pro Asp Thr Asp Trp Ala Arg Leu Leu Gln Asp His Pro Trp  
 85 90 95

Leu Leu Ser Gln Asn Leu Val Val Lys Pro Asp Gln Leu Asp Gln Thr  
 100 105 110

Ser Trp Xaa Asn Leu Val Phe Val Gly Val Gln Pro His Ser Gly Trp  
 115 120 125

Gly Gln Val Leu Gly  
 130

## 3945

&lt;210&gt; 4324

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4324

Leu	Glu	Arg	Xaa	Gly	Ala	Gly	Gly	Arg	Asp	Phe	Trp	Val	Pro	Val	Cys
1				5				10					15		

Cys	Arg	Gly	Leu	His	Val	Ile	Ser	Met	Glu	Lys	Ala	Val	Tyr	Ala	Val
			20				25					30			

Thr	Gln	Ser	Leu	Val	Arg	Gly	Gln	Ala	Pro	Gly	Gly	Gly	Gly	Ser	Ser
		35				40					45				

Cys	Gly	Ser	His	Ser	Pro	Arg	Lys	Pro	Pro	Leu	Pro	Ser	Val	Ser	Gln
	50					55				60					

Ile	Asp	Arg	Glu	Ser	Arg	Asp	Ser	Asp	Arg	Gln	Val	Thr	Ser	Gln	Ile
65					70				75						80

Glu	Ser	Ile	Phe	Val
				85

&lt;210&gt; 4325

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4325

Pro	Pro	Leu	Thr	Leu	Asp	Ser	Asn	Pro	Val	Val	Ile	Leu	Gly	Trp	Asp
1				5				10					15		

Leu	Gly	Ala	Cys	Arg	Trp	Leu	Arg	Ser	Gln	Pro	Leu	Val	Ile	Arg	Ala
			20				25					30			

## 3946

Leu Gly Val Glu Ala Trp Phe Xaa  
85

<213> Homo sapiens

Cys Met Val Arg Val Arg Cys  
65 70

<213> Homo sapiens

Ala Glu Asn Ile Pro Cys Phe Tyr Ile Gly Ser His Leu Tyr Leu Gly  
35 40 45

3947

Gly Thr Leu Ser Ile Tyr Ile Leu Phe Val  
 50 55

&lt;210&gt; 4328

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4328

His Arg Lys Lys His Phe Leu Lys Pro Thr Val Ser Asp Gln Trp Gly  
 1 5 10 15

Lys Gln Gln Lys Thr Lys Arg Arg Ile Phe Pro Leu Ile Phe Leu Gln  
 20 25 30

Lys Ser Ile Ser Leu Ile Ala His Cys His Lys Phe Cys Leu Val Leu  
 35 40 45

Arg Glu Ala Thr Cys Thr Gly Ser Phe Tyr Val Gln Arg Lys Asp Phe  
 50 55 60

Thr Ile Lys Lys Ile Asn Leu Ala Arg Xaa Gly Val Ser His Trp  
 65 70 75

&lt;210&gt; 4329

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4329

Pro Leu Gly His His Gln Val Pro Leu Thr Thr Lys Leu Ser Val Lys  
 1 5 10 15

Lys Thr Glu Asp Gly Asn Thr Leu Val Phe Ile Val Asn Val Lys Ala  
 20 25 30

Asn Lys His Arg Ile Lys Gln Ala Ser  
 35 40

## 3948

&lt;210&gt; 4330

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4330

Ile	Arg	His	Arg	His	Gly	Cys	Pro	Ser	Val	Leu	Arg	Met	Gly	Ser	Xaa
1				5					10					15	

Gln	Val	Gly	Xaa	Xaa	Gly	Cys	Trp	Gln	Asn	Arg	Arg	Ile	Pro	Ser	Phe
			20					25					30		

Ala	Glu	Trp	Gly	Thr	Cys	Ser	Glu	Pro	Ala	Gln	Xaa	Pro	Gly	Leu	Leu
			35				40					45			

Gln	Val	Lys	Leu	Asp	Gly	Arg	Pro	Arg	Ser	Gln	Phe	Leu	Ser	Thr	Arg
			50			55					60				

Arg	Gly	Arg	Cys	Leu	Glu	Pro	Leu	Pro	Thr	Phe	Ser	Trp	Met	Gly	Glu
65					70					75					80

Ala	Ser	Gln	Glu	Ser	Lys	Gln	Cys	Cys	Pro	His	Gly	Arg	Arg	Thr	Glu
					85				90					95	

Arg	Leu	Gly	Lys	Leu	Gly	Ser	Thr	Ser	His	Pro	Glu	Arg	Leu	Leu	Glu
			100					105					110		

Thr	Pro	Gln	Leu	Glu	Ser	Pro	Gly
			115				120

## 3949

&lt;210&gt; 4331

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4331

Gly Met Pro Thr Ala Ser Gln Arg Val Gly Gly Gly Leu Cys Thr Leu  
1 5 10 15

Ser Thr Asn Leu Pro Pro Thr Arg Leu Leu Thr Thr Ala Pro Arg Arg  
20 25 30

Leu Ser Asn Ser Val Ser Cys Pro Arg Gly Arg Gly Leu Pro Val Glu  
35 40 45

Xaa Pro Met Cys Leu Pro Leu Val Gln Pro Ala Ala Arg Lys Trp Val  
50 55 60

Thr Ala Thr Gly Leu Gly Trp Ala Arg Pro Gly Ser Gly Arg Cys Gly  
65 70 75 80

Ile Gly Glu Thr Thr Ala Pro Val Val Ser Ser Ala  
85 90

&lt;210&gt; 4332

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 3950

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4332

Cys Lys His Asp Gly Trp Gly Lys His Ser Asn Cys Thr His Gln Gln  
 1 5 10 15

Asp Ala Gly Val Thr Cys Ser Asp Gly Ser Asn Leu Glu Met Arg Leu  
 20 25 30

Thr Arg Gly Gly Asn Met Cys Ser Gly Arg Ile Glu Ile Lys Phe Gln  
 35 40 45

Gly Arg Trp Gly Thr Val Cys Asp Asp Asn Phe Asn Ile Asp His Ala  
 50 55 60

Ser Val Ile Cys Arg Gln Leu Glu Cys Gly Ser Ala Val Ser Phe Ser  
 65 70 75 80

Gly Ser Ser Asn Phe Gly Xaa Xaa Ser Gly Pro Ile Trp Phe Asp Asp  
 85 90 95

Leu Ile Cys Asn Gly Asn Glu Ser Ala Leu Trp Asn Cys Lys His Gln  
 100 105 110

Gly Trp Gly Lys His Asn Cys Asp His Ala Glu Asp Ala Gly Xaa Ile  
 115 120 125

Cys Ser Lys Gly Xaa Asp Leu Thr  
 130 135

&lt;210&gt; 4333

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4333

Ala Thr Ala His Gly Leu Thr Met Leu Ser Ile Pro Tyr Met Glu Arg  
 1 5 10 15

Cys Phe Pro Phe Gln Ser Ser Leu Lys Leu Cys Arg Arg Phe Thr Cys  
 20 25 30

Val Tyr Arg Ala Lys Arg Asn Gln Gly Met Glu Ile Glu Cys Val Ile  
 35 40 45

## 3951

Lys Ile Lys Leu Phe Met Leu Tyr Asn His Ala  
50 55

<210> 4334

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4334

Lys Ala Cys Leu Leu His Cys Glu Gln Asp Ser Ser Pro Leu Asn His  
1 5 10 15

Glu Tyr Val Ser Val Leu Trp Ile Thr Lys Leu Val Met Leu Leu Ser  
20 25 30

Pro Asn Val Phe Phe Lys Lys Tyr Ser Phe Val His Leu Xaa Val Ile  
35 40 45

Lys Leu Gln Asn  
50

<210> 4335

<211> 42

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4335

Tyr Glu Ser Leu Glu Met Tyr Gln Thr Glu Gly Xaa Phe Ser Leu Gln  
1 5 10 15

Ile Met Ser Asn Val Ala Ile Leu Thr His Phe Ile Asn Ile Tyr Phe  
20 25 30

Val Ile Gly Gly Glu His His Leu Leu Phe  
35 40



## 3952

&lt;210&gt; 4336

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4336

Ala	Leu	Asn	Ala	Lys	Leu	Phe	Tyr	Thr	Glu	Lys	Thr	Leu	Lys	Xaa	Val
1				5					10					15	

Leu	Cys	Gly	Ile	Thr	Val	Ile	Cys	His	Glu	Lys	Pro	Tyr	Met	Gly	Asp
			20					25					30		

Met	Leu	Lys	Trp	Leu	Leu	Asn	Glu	Ile	Arg	Gln	Gln	Arg	Lys	Met	Pro
		35					40					45			

Leu	Lys	Cys
		50

&lt;210&gt; 4337

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4337

Asp	Tyr	Ser	Asp	Phe	Val	Ser	Phe	Leu	Leu	Asn	Phe	Gly	Gln	Phe	Cys
1				5					10					15	

Phe	Cys	Leu	Cys	His	Leu	Ser	Phe	Gln	Met	Tyr	Trp	His	Glu	Tyr	Phe
			20					25					30		

His	Asn	Ile	Pro	Xaa	Leu	Ser	Phe	Thr	Phe	Leu	Gly	Tyr	Leu	Ser	Gly
			35				40					45			

## 3953

Val Ser Leu Phe Ile Pro Lys Met Phe Ile His Ala Phe Xaa  
 50 55 60

<210> 4338

<211> 141

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4338

Asp Met Met Pro Leu Leu His Asn Tyr Val Thr Val Asp Thr Asp Thr  
 1 5 10 15  
 Leu Leu Ser Asp Thr Lys Tyr Leu Glu Met Ile Tyr Ser Met Cys Lys  
 20 25 30  
 Lys Val Leu Thr Gly Val Ala Gly Glu Asp Ala Glu Cys His Ala Ala  
 35 40 45  
 Lys Leu Leu Glu Val Ile Ile Leu Gln Cys Lys Gly Arg Gly Ile Asp  
 50 55 60  
 Gln Cys Ile Pro Leu Phe Val Glu Ala Ala Leu Glu Arg Leu Thr Arg  
 65 70 75 80  
 Glu Val Lys Thr Ser Glu Leu Arg Thr Met Cys Leu Gln Val Ala Ile  
 85 90 95  
 Ala Ala Leu Tyr Tyr Asn Pro His Leu Leu Leu Xaa Thr Leu Glu Asn  
 100 105 110  
 Leu Arg Phe Pro Asn Asn Val Glu Pro Val Thr Asn His Phe Ile Thr  
 115 120 125  
 Gln Trp Leu Asn Asp Val Gly Leu Phe Leu Gly Ala Ser  
 130 135 140

<210> 4339

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4339

## 3954

Leu Ala Ser Met Gly Ile Pro Gln Val Val Val Gln Pro Arg Ser Trp  
 1 5 10 15

Trp Leu Gly Leu Met Leu Leu Pro Ser Pro Ser Val Ser Cys Ser Gly  
 20 25 30

Ser Ala Tyr Val Pro Gly Val Trp Tyr Leu Ile Phe Gln Asp Ala Asp  
 35 40 45

Ile Tyr Phe Leu Pro Thr Thr Pro Tyr Thr Leu Ser Leu Ala Asn Ile  
 50 55 60

Phe Glu Cys Leu Leu Leu Val Cys Leu Ser Ser Val Val Leu Leu Leu  
 65 70 75 80

Cys Pro Lys Cys Met Leu Cys Ser Val Ser Ala  
 85 90

<210> 4340

<211> 68

<212> PRT

<213> Homo sapiens

<400> 4340

Ser Tyr Ser Tyr Ser His Glu Arg Gln Asn Val Cys Phe Lys Ile Asn  
 1 5 10 15

Leu Val Phe Cys Thr Phe Lys Phe Glu Lys Val Thr Thr Gly Ser Phe  
 20 25 30

Pro Val Phe Leu His Val Ser Phe Leu Ile Asp His Tyr Trp Gln Thr  
 35 40 45

Val Ser Val Asn Tyr Gln Met Cys Lys Ile Phe Cys Ile Ser Leu Cys  
 50 55 60

Leu Ile Cys Lys  
 65

<210> 4341

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4341

Gly Ala Ala Pro Pro Leu Ser Ser Glu His Lys Glu Pro Val Ala Gly  
 1 5 10 15

## 3955

Asp Ala Val Pro Gly Pro Lys Asp Gly Ser Ala Pro Glu Val Arg Gly  
                   20                  25                  30

Ala Arg Asn Ser Glu Pro Gln Asp Glu Gly Glu Leu Phe Gln Gly Val  
                   35                  40                  45

Asp Pro Arg Ala Leu Ala Ala Val Leu Leu Gln Ala Leu Asp Arg Pro  
                   50                  55                  60

Ala Ser Pro Pro Ala Pro Ser Gly Ser Gln Gln Gly Pro Glu Glu Glu  
                   65                  70                  75                  80

Ala Ala Glu Ala Leu Leu Thr Glu Thr Val Arg Ser Gln Thr His Ser  
                   85                  90                  95

Leu Pro Ala Pro Glu Ser Pro Glu Pro Ala Ser Ala Ser Pro Ser Asp  
                   100                  105                  110

Ser Gly Glu Trp Ala Arg Gly Glu Arg Ser Leu Arg Gly  
                   115                  120                  125

<210> 4342

<211> 50

<212> PRT

<213> Homo sapiens

<400> 4342

Phe Leu Leu Trp Gln Ile Leu Ser Ser Asn Leu Ser Phe Leu Val Glu  
                   1                  5                  10                  15

Gln Ala Leu Phe Phe Glu Pro Ser Asn Asp Leu Glu Ala Asp Val Ile  
                   20                  25                  30

Ser Val Pro Phe Ala Ile Cys Cys Val Gly Phe Phe Phe Phe Lys Ala  
                   35                  40                  45

Thr Gln  
                   50

<210> 4343

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4343

Asp Pro Arg Val Arg Glu Asp Pro Gln Pro Gly Pro Lys Pro Val Pro

## 3956

1	5	10	15
Glu Pro Glu Pro Glu Pro Glu Pro Ser Arg Glu Pro Val Ala Gly Ala	20	25	30
Pro Gly Cys Gly Thr Ala Gly Pro Pro Ala Met Ala Thr Leu Trp Gly	35	40	45
Gly Leu Leu Arg Leu Gly Ser Leu Leu Ser Leu Ser Cys Leu Ala Leu	50	55	60
Ser Val Leu Leu Leu Ala His Cys Gln Thr Pro Pro Arg Ile Ser Arg	65	70	75
Met Ser Asp Val Asn Val Ser Ala Leu Pro Ile Lys Lys Asn Ser Gly	85	90	95
His Ile Tyr Asn Lys Asn Ile Ser Gln Lys Asp Cys Asp Cys Leu His	100	105	110
Val Val Glu Pro Met Pro Val Arg Gly Pro Asp Val Glu Ala Tyr Cys	115	120	125
Leu Arg Cys Glu Cys Lys Tyr Glu Glu Arg Ser Ser Val Thr Ile Lys	130	135	140
Val Thr Ile Ile Ile Tyr Leu Ser Ile Leu Gly Leu Leu Leu Leu Tyr	145	150	155
Met Val Tyr Leu Thr Leu Val Glu Pro Ile Leu Lys Arg Arg Leu Phe	165	170	175
Gly His Ala Gln Leu Ile Gln Ser Asp Asp Asp Ile Gly Asp His Gln	180	185	190
Pro Phe Ala Asn Ala His Asp Val Leu Ala Arg Ser Arg Ser Arg Ala	195	200	205
Asn Val Leu Asn Lys Val Glu Tyr Gly Thr Ala Ala Leu Glu Ala Ser	210	215	220
Ser Pro Arg Ala Ala Lys Ser Leu Ser Leu Thr Gly Met Leu Ser Ser	225	230	235
Ala Asn Trp Gly Ile Glu Phe Lys Val Thr Arg Lys Lys Gln Ala Asp	245	250	255
Asn Trp Lys Gly Thr Asp Trp Val Leu Leu Gly Phe Ile Leu Ile Pro	260	265	270
Cys			

3957

&lt;210&gt; 4344

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4344

Val Met Ala Pro Lys Asp Val Leu Phe Ile Leu Ile Pro Gly Thr Cys  
 1 5 10 15

Lys His Val Thr Leu Tyr Gly Lys Arg Asp Phe Gly Gln Ala Pro Val  
 20 25 30

Ile Pro Asp Thr Gln Glu Ala Glu Ala Lys Glu Ser Leu Lys Pro Gly  
 35 40 45

Arg Arg Arg Leu Gln Gly Ala Lys Ile Val Pro Met His Ser Ser Leu  
 50 55 60

Ser Asn Lys Val Arg Leu Cys Leu  
 65 70

&lt;210&gt; 4345

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4345

Arg Trp Arg Asp Thr Leu Thr Gln Leu Ser Leu Ser Tyr Tyr Ala Thr  
 1 5 10 15

Asp Gln Gly Lys Arg Trp Asp Asp Arg Trp Gly Gln Thr Glu Arg Ala  
 20 25 30

Ser Gly Lys Gln Ala Tyr Ile Val Phe Phe Lys Met His Lys Ala Ser  
 35 40 45

Gln Leu Arg Xaa His Leu Val Trp Ala Ser Leu Gly Leu Glu Thr Leu  
 50 55 60

Leu Glu Phe Phe Leu Gly Thr Trp Arg Val Asp Asp Ile Gln Ala Leu

65                      70                      75                      80

Lys His Ser Gln Arg Ser Pro Glu Gly Ala Thr Phe Ser Arg

85                      90

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<400> 4346
Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
 1             5             10             15
Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
      20             25             30
Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
      35             40             45
Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
      50             55             60
Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
 65             70             75             80
Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met
      85             90

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<400> 4347
Pro  Ala  Ser  Glu  Val  Leu  Met  Asp  Asp  Asp  Leu  Gln  Lys  Ser  Val  Asp
  1              5              10              15

Met  Ile  Met  Asp  Met  Phe  Cys  Pro  Pro  Gly  Ile  Lys  Ile  Asp  Ala  Tyr
      20              25              30

Pro  Trp  Leu  Glu  Cys  Phe  Ile  Lys  Ser  Tyr  Asn  Val  Thr  Asn  Gly  Thr
      35              40              45

Asp  Asn  Gln  Ile  Cys  Tyr  Gln  Ile  Phe  Asp  Thr  Thr  Val  Ala  Glu  Asp
      50              55              60

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## 3959

Val Ile  
65

<210> 4348

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4348

Leu Arg Cys His Lys Lys Gln His Ser Asp Gln Ser Glu Asn Lys Asn  
1 5 10 15

Ser Asp Leu Val Thr Phe Pro Pro Glu Ser Gly Ala Ser Gly Gln Leu  
20 25 30

Ser Thr Leu Val Ser Val Gly Gln Leu Glu Ala Pro Leu Glu Pro Ser  
35 40 45

Gln Asp Leu  
50

<210> 4349

<211> 69

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4349

Lys Ile Ala Glu Leu Glu Phe Ser Pro Val Phe His Phe Thr Leu Pro  
1 5 10 15

Val Ser His Ala Gln Asn Thr Arg Gly Ser Ala Gly Ser Gln Ser Thr  
20 25 30

Asp Glu Asn Pro Asn Leu Ser Xaa Phe Leu Gly Ser Ser Lys Trp Trp  
35 40 45

Ser Arg Met Val Gly Asp Leu Ile Ser Tyr Tyr Leu Pro Gly Glu Xaa



## 3960

50

55

60

Phe Leu Pro Gly Lys

65

&lt;210&gt; 4350

&lt;211&gt; 313

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (297)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (310)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4350

Gly	Gly	Gly	Arg	Gly	Arg	Glu	Gly	Arg	Arg	Pro	Glu	Arg	Gly	Cys	Cys
1				5					10					15	

Glu	Gly	Arg	Gly	Pro	Val	Thr	Gly	Arg	Glu	Ala	Ala	Gly	Gly	Gly	Gly
			20					25					30		

Gly	Thr	Ser	Thr	Thr	Met	Ser	Arg	Ser	Val	Leu	Gln	Pro	Ser	Gln	Gln
		35					40					45			

Lys	Leu	Ala	Glu	Lys	Leu	Thr	Ile	Leu	Asn	Asp	Arg	Gly	Val	Gly	Met
	50					55					60				

Leu	Thr	Arg	Leu	Tyr	Asn	Ile	Lys	Lys	Ala	Cys	Gly	Asp	Pro	Lys	Ala
65					70					75					80

Lys	Pro	Ser	Tyr	Leu	Ile	Asp	Lys	Asn	Leu	Glu	Ser	Ala	Val	Lys	Phe
				85					90					95	

Ile	Val	Arg	Lys	Phe	Pro	Ala	Val	Glu	Thr	Arg	Asn	Asn	Asn	Gln	Gln
			100					105					110		

Leu	Ala	Gln	Leu	Gln	Lys	Glu	Lys	Ser	Glu	Ile	Leu	Lys	Asn	Leu	Ala
		115					120					125			

Leu	Tyr	Tyr	Phe	Thr	Phe	Val	Asp	Val	Met	Glu	Phe	Lys	Asp	His	Val
	130					135					140				

Cys	Glu	Leu	Leu	Asn	Thr	Ile	Asp	Val	Cys	Gln	Val	Phe	Phe	Asp	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 3961

145                      150                      155                      160  
 Thr Val Asn Phe Asp Leu Thr Lys Asn Tyr Leu Asp Leu Ile Ile Thr  
                                  165                      170                      175  
 Tyr Thr Thr Leu Met Ile Leu Leu Ser Arg Ile Glu Glu Arg Lys Ala  
                                  180                      185                      190  
 Ile Ile Gly Leu Tyr Asn Tyr Ala His Glu Met Thr His Gly Ala Ser  
                                  195                      200                      205  
 Asp Arg Glu Tyr Pro Arg Leu Gly Gln Met Ile Val Asp Tyr Glu Asn  
                                  210                      215                      220  
 Pro Leu Lys Lys Met Met Glu Glu Phe Val Pro His Ser Lys Ser Leu  
 225                                   230                      235                      240  
 Ser Asp Ala Leu Ile Ser Leu Gln Met Val Tyr Pro Arg Arg Asn Leu  
                                  245                      250                      255  
 Ser Ala Asp Gln Trp Arg Asn Ala Gln Leu Leu Ser Leu Ile Ser Ala  
                                  260                      265                      270  
 Pro Ser Thr Met Leu Asn Pro Ala Gln Ser Asp Thr Met Pro Cys Glu  
                                  275                      280                      285  
 Tyr Leu Ser Leu Gly Cys Asn Gly Xaa Ile Gly Leu Ser Leu Ala Leu  
                                  290                      295                      300  
 Phe Val Pro Trp Gly Xaa Leu Asn Thr  
 305                                   310

&lt;210&gt; 4351

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4351

Gly Arg Gly Ser Val Ile Ser Trp Ile Ser Gly His Ile Cys Tyr Ser  
     1                      5                      10                      15

Thr Asp His Gly Thr Leu Gly Glu Glu Arg Cys Phe Pro Ser Thr His  
                                  20                      25                      30

Leu Met Phe Ile Gly Trp Gly Ser Trp Asn Arg Arg Gln Ile Ser Lys  
35 40 45

Gly Ser Phe Phe Arg Ser Lys Ser Tyr Leu Asn Lys His Ile Gln Lys

## 3963

20 25 30  
 Val His Val Arg Ala Leu Gly Gly Pro Leu Gly Asp Leu Gly Pro Ala  
 35 40 45  
 Leu Gly Ser Pro Phe Ser Pro Gln Gln Asn Met Ser Leu Leu Glu Ser  
 50 55 60  
 Phe Gly Phe Gln Ile Val Gln Ser Ala Phe Ala Ser Ser Leu Val Asp  
 65 70 75 80  
 Pro Glu Val Asp Gln Gln Pro Met Gly Pro Glu Gly Lys  
 85 90

&lt;210&gt; 4354

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4354

Ser His Gln Ile Phe Met Phe Lys Lys Ile Ser Leu Trp Ile Glu Ser  
 1 5 10 15  
 Ser Pro Ala Leu Arg Glu Lys Glu Gly Pro Tyr Gly Arg Leu Xaa Ser  
 20 25 30  
 His Tyr Tyr Cys Leu Tyr Pro Ala Val Leu Met Lys Pro Pro Thr Leu  
 35 40 45  
 Ser His Ser Arg Asn His Lys Thr Gln Ala Val Leu Asp Ser Gly Gly  
 50 55 60  
 Leu Pro Gly Lys Ile Arg  
 65 70

&lt;210&gt; 4355

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 3964

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4355

Phe	Ser	Xaa	Pro	Val	Gln	Arg	Leu	Xaa	Cys	Arg	Arg	His	Pro	Leu	Ala
1				5				10						15	

Ala	Cys	Ser	Ser	Ala	Ala	Pro	Phe	Ala	Ala	Val	Pro	Cys	Ala	Pro	Glu
			20					25					30		

Asn	Glu	Asn	Pro	Ala	Phe	Ala	Thr	Asn	His	Ala	Pro	Val	Asn	Ala	Lys
		35					40					45			

Pro	His	Ala	Leu	Cys	Pro	Glu	Arg	Lys	Pro	Leu	Thr	Ser	Lys	Glu	Asn
	50					55					60				

Val	Leu	Met	His	Ser	Ser	Ile	Leu	Ala	Pro	Xaa	Arg	Glu	Ser	Trp	Xaa
65					70					75					80

Thr	Ala	Gly	Glu	Gly	Glu	Asn	Trp	Lys	Lys	Lys	Lys
			85						90		

&lt;210&gt; 4356

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4356

Glu	Cys	Trp	Ser	Glu	Arg	Ser	Leu	Lys	Pro	Gly	Arg	Gly	Ala	Asp	Pro
1				5					10					15	

Leu	Cys	Ser	Ala	Pro	Thr	Leu	Cys	Gln	Gly	Gly	Leu	Ala	Thr	Thr	Val
			20					25					30		

## 3965

Phe Phe Leu Leu Phe Ile Cys Ser Trp Ile Phe Leu Lys Pro Phe His  
           35                          40                          45  
 His Gln Pro Ser Ser Ser Leu Pro Ala Pro Trp Arg Leu Lys Leu Phe  
           50                          55                          60  
 Pro Ala Tyr Val Arg Glu Gly Glu Pro Glu Thr Ala Thr Ser Gly Val  
           65                          70                          75                          80  
 Lys Gly Val Ser Ser Glu Pro Arg Thr Met Ala Phe Cys His Cys Leu  
                           85                          90                          95  
 Leu Ser Ser Cys Cys Trp Gly Leu Gly Leu Leu Ala Ala Ala Ser Phe  
                           100                          105                          110  
 Ser Ala Asn Gln Glu Ser Arg Glu Val Gly Thr Ala Ser Thr Lys Thr  
           115                          120                          125  
 Leu Lys Met Ser Gly Glu Asp Arg Leu Ser Pro Gly  
           130                          135                          140

&lt;210&gt; 4357

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4357

Leu Gly Leu Gly Gln Cys Leu Trp Pro Xaa Phe Ser His Ser Tyr Xaa  
           1                          5                          10                          15

Ala Glu Cys Ser Lys Ser Val Gln Ile Arg Glu Thr Thr Arg Cys Asn  
           20                          25                          30

Gln Ser Ser Cys Ser Leu Pro Tyr Phe Gln Ile Leu Tyr Val Ile Ser

3966

35 40 45

His Phe Xaa Ser Ile Asn Leu Leu Pro Pro  
50 55

<210> 4358  
<211> 178  
<212> PRT  
<213> Homo sapiens

<400> 4358

Ala Leu Arg Leu Arg Glu Asp Asp Arg Arg Gly Gly Thr Met Leu Leu  
1 5 10 15

Pro Asn Ile Leu Leu Thr Gly Thr Pro Gly Val Gly Lys Thr Thr Leu  
20 25 30

Gly Lys Glu Leu Ala Ser Lys Ser Gly Leu Lys Tyr Ile Asn Val Gly  
35 40 45

Asp Leu Ala Arg Glu Glu Gln Leu Tyr Asp Gly Tyr Asp Glu Glu Tyr  
50 55 60

Asp Cys Pro Ile Leu Asp Glu Asp Arg Val Val Asp Glu Leu Asp Asn  
65 70 75 80

Gln Met Arg Glu Gly Gly Val Ile Val Asp Tyr His Gly Cys Asp Phe  
85 90 95

Phe Pro Glu Arg Trp Phe His Ile Val Phe Val Leu Arg Thr Asp Thr  
100 105 110

Asn Val Leu Tyr Glu Arg Leu Glu Thr Arg Gly Tyr Asn Glu Lys Lys  
115 120 125

Leu Thr Asp Asn Ile Gln Cys Glu Ile Phe Gln Val Leu Tyr Glu Glu  
130 135 140

Ala Thr Ala Ser Tyr Lys Glu Glu Ile Val His Gln Leu Pro Ser Asn  
145 150 155 160

Lys Pro Glu Glu Leu Glu Asn Asn Val Asp Gln Ile Leu Lys Trp Ile  
165 170 175

Glu Gln

## 3967

&lt;210&gt; 4359

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4359

Leu	Met	Val	Ile	Asp	Phe	Ile	Pro	Lys	His	Asn	Trp	Lys	Ile	Glu	Xaa
1				5				10						15	

Glu	Pro	Leu	Pro	Asn	Gly	Lys	Glu	Met	Lys	Ser	Phe	His	Ser	Asp	Tyr
			20				25						30		

&lt;210&gt; 4360

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4360

Asn	Ile	Asn	Pro	Asn	Ser	Pro	Phe	His	Phe	Ser	Leu	Arg	His	Glu	Ser
1				5				10						15	

Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met	Asn	Cys	Ser	Ile	Asn
			20				25						30		

Lys	Glu	Glu	Val	Leu	Arg	Xaa	Lys	Ala	Ser	Glu	Glu	Gln	Glu	Gly	Lys
			35				40					45			

Gly	Gly	Ser	Ile	Arg	Lys	Met	Arg	Ser
			50			55		

&lt;210&gt; 4361

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



## 3968

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4361

Asn	Gly	Phe	Glu	Thr	Ile	Gly	Thr	Asp	Lys	Ser	Gln	Ile	Gly	Gly	Ser
1				5					10					15	

Leu	Ile	Leu	Asn	Trp	Pro	Cys	His	Gln	Cys	Leu	Phe	Leu	Arg	Xaa	Phe
			20					25					30		

Gly	Gly	Cys	His	Val	Tyr	His	Phe	Phe
		35					40	

&lt;210&gt; 4362

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4362

Thr	Trp	Val	Pro	Thr	Thr	Ile	Leu	Asp	Leu	His	Gly	Ile	Leu	Asp	His
1				5					10					15	

Val	Lys	Lys	Gln	Pro	Pro	Lys	Ser	Leu	Arg	Ser	Met	Glu	Leu	Glu	Cys
			20					25					30		

Ala	Val	Leu	Gly	Arg	Lys	Leu	Glu	Thr	Trp	Asp	Lys	His	Glu	Glu	Leu
		35					40					45			

Glu	Glu	Leu	Val	Ala	Arg	Phe	Leu	Gly	Val	Glu	Ala	Ala	Met	Ala	Tyr
		50				55					60				

Gly	Met	Gly	Phe	Ala	Thr	Asn	Ser	Met	Asn	Ile	Pro	Ala	Leu	Val	Gly
	65				70					75					80

Lys	Gly	Cys	Leu	Ile	Leu	Ser	Asp	Glu	Leu	Asn	His	Ala	Ser	Leu	Val
				85					90					95	

Leu	Gly	Ala	Arg	Leu	Ser	Gly	Ala	Thr	Ile	Arg	Ile	Phe	Lys	His	Asn
			100					105					110		

Asn	Met	Gln	Ser	Leu	Glu	Lys	Leu	Leu	Lys	Asp	Ala	Ile	Val	Tyr	Gly
		115					120					125			

Gln	Pro	Arg	Thr	Arg	Arg	Pro	Trp	Lys	Lys	Ile	Leu	Ile	Leu	Val	Glu
	130					135					140				

## 3969

Gly Ile Tyr Ser Met Glu Gly Ser Ile Val Arg Leu Pro Glu Val Ile  
 145 150 155 160  
 Ala Leu Lys Lys Lys Tyr Lys Ala Tyr Leu Tyr Leu Asp Glu Ala His  
 165 170 175  
 Ser Ile Gly Ala Leu Gly Pro Thr Gly Arg Gly Val Val Glu Tyr Phe  
 180 185 190  
 Gly Leu Asp Pro Glu Asp Val Asp Val Met Met Gly Thr Phe Thr Lys  
 195 200 205  
 Ser Phe Gly Ala Ser Gly Gly Tyr Ile Gly Gly Lys Lys Glu Leu Ile  
 210 215 220  
 Asp Tyr Leu Arg Thr His Ser His Ser Ala Val Tyr Ala Thr Ser Leu  
 225 230 235 240  
 Ser Pro Pro Val Val Glu Gln Ile Ile Thr Ser Met Lys Cys Ile Met  
 245 250 255  
 Gly Gln Asp Gly Thr Ser Leu Gly Lys Glu Cys Val Gln Gln Leu Ala  
 260 265 270  
 Glu Asn Thr Arg Tyr Phe Arg Arg Arg Leu Lys Glu Met Gly Phe Ile  
 275 280 285  
 Ile Tyr Gly Asn Glu Asp Ser Pro Val Val Pro Leu Met Leu Tyr Met  
 290 295 300  
 Pro Ala Lys Ile Gly Ala Phe Gly Arg Glu Met Leu Lys Arg Asn Ile  
 305 310 315 320  
 Gly Val Val Val Val Gly Phe Pro Ala Thr Pro Ile Ile Glu Ser Arg  
 325 330 335  
 Ala Arg Phe Cys Leu Ser Ala Ala His Thr Lys Glu Ile Leu Asp Thr  
 340 345 350  
 Ala Leu Lys Glu Ile Asp Glu Val Gly Asp Leu Leu Gln Leu Lys Tyr  
 355 360 365  
 Ser Arg His Arg Leu Val Pro Leu Leu Asp Arg Pro Phe Asp Glu Thr  
 370 375 380  
 Thr Tyr Glu Glu Thr Glu Asp  
 385 390

&lt;210&gt; 4363

## 3970

<211> 62  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4363  
Ser Gly Val Val Thr Ala Cys Glu Gly Thr Glu Leu Ser Ala Gly Ser  
1 5 10 15  
Arg Asp His Gly His Lys Ala Leu Thr Leu Thr Arg Pro Gln Gln Ala  
20 25 30  
Leu Xaa Glu Gly Gln Pro Pro Pro Leu Leu Leu Leu Ser Leu Thr Val  
35 40 45  
Ala Val Asp Leu Arg Xaa Tyr Ile Leu Arg Xaa His Ser Leu  
50 55 60

<210> 4364  
<211> 225  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (143)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

## 3971

&lt;222&gt; (176)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4364

Gly	Thr	Arg	Ser	Gly	Ser	Glu	Glu	Asp	Pro	Glu	Thr	Glu	Ser	Gly	Pro
1				5					10					15	

Pro	Val	Glu	Arg	Cys	Gly	Val	Leu	Ser	Lys	Trp	Thr	Asn	Tyr	Ile	His
		20						25					30		

Gly	Trp	Gln	Asp	Arg	Trp	Val	Val	Leu	Lys	Asn	Asn	Ala	Leu	Ser	Tyr
		35					40					45			

Tyr	Lys	Ser	Glu	Asp	Glu	Thr	Glu	Tyr	Gly	Cys	Arg	Gly	Ser	Ile	Cys
	50					55					60				

Leu	Ser	Lys	Ala	Val	Ile	Thr	Pro	His	Asp	Phe	Xaa	Glu	Cys	Arg	Phe
65					70					75					80

Asp	Ile	Ser	Val	Asn	Asp	Ser	Val	Trp	Tyr	Leu	Arg	Ala	Gln	Asp	Pro
				85					90					95	

Asp	His	Arg	Gln	Gln	Trp	Ile	Asp	Ala	Ile	Glu	Gln	His	Lys	Thr	Glu
			100					105					110		

Ser	Gly	Tyr	Gly	Ser	Glu	Ser	Ser	Leu	Arg	Arg	His	Gly	Ser	Met	Val
		115					120					125			

Ser	Leu	Val	Ser	Gly	Ala	Ser	Gly	Tyr	Ser	Glu	Thr	Ser	Thr	Xaa	Ser
	130					135					140				

Phe	Lys	Lys	Gly	His	Ser	Leu	Arg	Glu	Lys	Leu	Ala	Glu	Met	Glu	Thr
145					150					155					160

Phe	Arg	Asp	Ile	Leu	Cys	Arg	Gln	Val	Asp	Thr	Leu	Gln	Lys	Tyr	Xaa
			165						170					175	

Asp	Ala	Cys	Ala	Asp	Ala	Val	Ser	Lys	Asp	Glu	Leu	Gln	Arg	Asp	Lys
			180					185					190		

Val	Val	Glu	Asp	Asp	Glu	Asp	Asp	Phe	Pro	Thr	Thr	Arg	Ser	Asp	Gly
		195					200					205			

Asp	Phe	Leu	His	Ser	Thr	Asn	Gly	Asn	Lys	Glu	Lys	Leu	Phe	Pro	His
	210						215				220				

Val  
225

## 3972

&lt;210&gt; 4365

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4365

Ile	Ala	Ser	Ala	Xaa	Phe	Tyr	Ala	Arg	Leu	Asn	Tyr	Glu	Pro	Val	Arg
1				5					10					15	

Pro	Gly	Gly	Gly	Ser	Gly	Gly	His	Ser	Ala	Arg	Cys	Arg	Arg	Arg	Glu
			20					25					30		

Arg	Gly	Ala	Ala	Ala	Ala	His	Gly	Ala	Pro	Ser	Ala	Ser	Phe	Phe	Pro
		35					40					45			

Pro	Pro	Val	Pro	Asn	Pro	Phe	Val	Gln	Gln	Thr	Gln	Ile	Gly	Ser	Ala
		50				55					60				

Arg	Arg	Val	Gln	Ile	Val	Leu	Leu	Gly	Ile	Ile	Leu	Leu	Pro	Ile	Arg
65					70					75					80

Val	Leu	Leu	Val	Ala	Leu	Ile	Tyr	Tyr	Leu	His	Gly	His	Cys	Cys	Ile
				85					90					95	

Ser	Thr	Val	Cys	Cys	Pro	Glu	Lys	Leu	Thr	His	Pro	Ile	Thr	Gly	Trp
			100					105					110		

Arg Arg

&lt;210&gt; 4366

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4366

Val	Gly	Met	Val	Ser	His	Ser	Ser	Arg	Cys	Arg	Phe	Gly	Leu	Leu	Gly
1				5					10					15	

Thr	Ile	Trp	Leu	Asp	Pro	Glu	Ser	Ala	Trp	Asn	Arg	Asp	Arg	Asp	Leu
			20					25					30		

Ser	Gly	Pro	Ala	Ala	Gly	Ser	Ser	Leu	Val	Val	Ala	Val	Val	Arg	Gly
			35				40					45			

## 3973

Leu Arg Trp Leu Pro Gly Leu Val  
 50 55

<210> 4367

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4367

Gly Thr Ser Ser Ser Ser Ser Ser Gln Leu Ala Pro Asn Gly Ala Lys  
 1 5 10 15

Cys Ile Pro Val Arg Asp Arg Gly Phe Leu Val Gln Thr Ile Glu Phe  
 20 25 30

Ala Glu Gln Arg Ile Pro Val Leu Asn Glu Tyr Cys Val Val Cys Asp  
 35 40 45

Glu Pro His Val Phe Gln Asn Gly Pro Met Leu Arg Pro Thr Val Cys  
 50 55 60

Glu Arg Glu Leu Cys Val Phe Ala Phe Gln Thr Leu Gly Val Met Asn  
 65 70 75 80

Glu Ala Ala Asp Glu Ile Ala Thr Gly Ala Gln Val Val Asp Leu Leu  
 85 90 95

Val Ser Met Cys Arg Ser Ala Leu Glu Ser Pro Arg Lys Val Val Ile  
 100 105 110

Phe Glu Pro Tyr Pro Ser Val Val Asp Pro Asn Asp Pro Gln Met Leu  
 115 120 125

Ala Phe Asn Pro Arg Lys Lys Asn Tyr Asp Arg Val Met Lys Ala Leu  
 130 135 140

Asp Ser Ile Thr Ser Ile Arg Glu Met Thr Gln Ala Pro Tyr Leu Glu  
 145 150 155 160

Ile Lys Lys Gln Met Asp Lys Gln Asp Pro Leu Ala His Pro Leu Leu  
 165 170 175

Gln Trp Val Ile Ser Ser Asn Arg Ser His Ile Val Lys Leu Pro Val  
 180 185 190

Asn Arg Gln Leu Lys Phe Met His Thr Pro His Gln Phe Leu Leu Leu  
 195 200 205

## 3974

Ser Ser Pro Pro Ala Lys Glu Ser Asn Phe Arg Ala Ala Lys Lys Leu  
 210 215 220  
 Phe Gly Ser Thr Phe Ala Phe His Gly Ser His Ile Glu Asn Trp His  
 225 230 235 240  
 Ser Ile Leu Arg Asn Gly Leu Val Val Ala Ser Asn Thr Arg Leu Gln  
 245 250 255  
 Leu His Gly Ala Met Tyr Gly Ser Gly Ile Tyr Leu Ser Pro Met Ser  
 260 265 270  
 Ser Ile Ser Phe Gly Tyr Ser Gly Met Asn Lys Lys Gln Lys Val Ser  
 275 280 285  
 Ala Lys Asp Glu Pro Ala Ser Ser Ser Lys Ser Ser Asn Thr Ser Gln  
 290 295 300  
 Ser Gln Lys Lys Gly Gln Gln Ser Gln Phe Leu Gln Ser Arg Asn Leu  
 305 310 315 320  
 Lys Cys Ile Ala Leu Cys Glu Val Ile Thr Ser Ser Asp Leu His Lys  
 325 330 335  
 His Gly Glu Ile Trp Val Val Pro Asn Thr Asp His Val Cys Thr Arg  
 340 345 350  
 Phe Phe Phe Val Tyr Glu Asp Gly Gln Val Gly Asp Ala Asn Ile Asn  
 355 360 365  
 Thr Gln Glu Gly Gly Ile His Lys Glu Ile Leu Arg Val Ile Gly Asn  
 370 375 380  
 Gln Thr Ala Thr Gly  
 385

&lt;210&gt; 4368

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4368

Thr Ser Leu Gln Leu Met Met Ser Ser Phe Ser Gln Gly Val Gln Arg  
 1 5 10 15

Gln Glu Val Val Cys Lys Arg Leu Asp Asp Asn Ser Ile Val Gln Asn  
 20 25 30

Asn Tyr Cys Asp Pro Asp Ser Lys Pro Pro Glu Asn Gln Arg Ala Cys

## 3975

35	40	45	
Asn Thr Glu Pro Cys Pro Pro Glu Trp Phe Ile Gly Asp Trp Leu Glu			
50	55	60	
Cys Ser Lys Thr Cys Asp Gly Gly Met Arg Thr Arg Ala Val Leu Cys			
65	70	75	80
Ile Arg Lys Ile Gly Pro Ser Glu Glu Glu Thr Leu Asp Tyr Ser Gly			
85	90	95	100
Cys Leu Thr His Arg Pro Val Glu Lys Glu Pro Cys Asn Asn Gln Ser			
100	105	110	115
Cys Pro Pro Gln Trp Val Ala Leu Asp Trp Ser Glu Cys Thr Pro Lys			
115	120	125	130
Cys Gly Pro Gly Phe Lys His Arg Ile Val Leu Cys Lys Ser Ser Asp			
130	135	140	145
Leu Ser Lys Thr Phe Pro Ala Ala Gln Cys Pro Glu Glu Ser Lys Pro			
145	150	155	160
Pro Val Arg Ile Arg Cys Ser Leu Gly Arg Cys Pro Pro Pro Arg Trp			
165	170	175	180
Val Thr Gly Asp Trp Gly Gln Cys Ser Ala Gln Cys Gly Leu Gly Gln			
180	185	190	195
His Leu Gly			

&lt;210&gt; 4369

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE



## 3976

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4369

Ala	Gln	Gly	Phe	Arg	His	Glu	Xaa	Xaa	Leu	Leu	Val	Gly	Gly	Leu	Leu
1				5					10					15	

Ala	Xaa	Asp	Gly	Asp	Cys	Pro	Gly	Val	Val	Thr	Met	Phe	Leu	Ser	Ala
			20					25					30		

Val	Phe	Phe	Ala	Lys	Ser	Lys	Ser	Lys	Asn	Ile	Leu	Val	Arg	Met	Val
			35					40					45		

Ser	Glu	Ala	Gly	Thr	Gly	Phe	Cys	Phe	Asn	Thr	Lys	Arg	Asn	Arg	Leu
	50						55					60			

Arg	Glu	Lys	Leu	Thr	Leu	Leu	His	Tyr	Asp	Pro	Val	Val	Lys	Gln	Arg
65						70					75				80

Val	Leu	Phe	Val	Glu	Lys	Lys	Lys	Ile	Arg	Ser	Leu
				85					90		

&lt;210&gt; 4370

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4370

Arg	Phe	Gln	Phe	Pro	Val	Cys	His	Arg	Trp	Pro	Pro	Ile	Phe	Gln	Lys
1				5					10					15	

Ser	Leu	Ala	Pro	Leu	Phe	Leu	Phe	Leu	His	Pro	Ser	Pro	Gln	Arg	Ser
			20					25					30		

Leu	Thr	Arg	Xaa	Lys	Gln	Glu	Asp	Ser	Val	Ile	Tyr	Lys	Arg	His	Phe
			35					40				45			

Ser	Phe	Thr	Arg	Thr	Glu	Asn	Ser	Thr	Gln	His	Tyr	Arg	Asn	Ser
	50					55					60			

&lt;210&gt; 4371

&lt;211&gt; 91

## 3977

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4371

Asp	Val	Cys	Phe	Asn	Leu	Ile	Phe	Leu	Arg	Asp	Gly	Gly	His	His	Val
1				5					10					15	
Glu	Thr	Arg	Lys	Trp	Gly	Lys	Cys	Glu	Leu	Ser	Arg	Gln	Arg	Phe	Ile
			20					25					30		
Leu	Cys	Leu	Tyr	Leu	Phe	Leu	Ile	Gly	Leu	Ile	Ser	Asn	Val	Leu	Asn
			35					40					45		
Ser	Ser	Ile	Pro	Gly	Leu	Gly	Val	Cys	Asn	Gly	Tyr	Gln	Lys	Thr	Asn
			50				55					60			
Lys	Lys	Arg	Lys	Lys	Lys	Glu	Lys	Lys	Lys	Glu	Asn	Asn	Cys	Asp	Met
			65				70				75				80
Leu	Leu	Ser	Leu	Leu	Tyr	Phe	Ser	Asn	Asn	Met					
					85					90					

&lt;210&gt; 4372

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4372

Lys	Leu	Ser	Glu	Gly	Tyr	Tyr	Leu	Tyr	Leu	Met	Lys	Glu	Asn	Pro	Asn
1				5						10				15	
Lys	Ala	His	Leu	Glu	Ile	Asp	Ile	Leu	Leu	Tyr	Met	Cys	Tyr	Arg	Tyr
			20					25					30		
Thr	Tyr	Ile	Val	Gln	Ile	Asp	Met	Cys	Asp	Ala	Tyr	Ile	Gln	Cys	Tyr
			35					40					45		
Ile	Cys	Val	Tyr	Val	Cys	Ile	His	Thr	Glu	Ser	Val	Ile	Cys	Ile	His
			50				55				60				

&lt;210&gt; 4373

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 3978

&lt;400&gt; 4373

Glu	Arg	Arg	Val	Arg	Arg	Val	His	Glu	Glu	Val	Arg	Val	Lys	Ile	Lys	1	5	10	15
Asp	Leu	Asn	Glu	His	Ile	Val	Cys	Cys	Leu	Cys	Ala	Gly	Tyr	Phe	Val	20	25	30	
Asp	Ala	Thr	Thr	Ile	Thr	Glu	Cys	Leu	His	Thr	Phe	Cys	Lys	Ser	Cys	35	40	45	
Ile	Val	Lys	Tyr	Leu	Gln	Thr	Ser	Lys	Tyr	Cys	Pro	Met	Cys	Asn	Ile	50	55	60	
Lys	Ile	His	Glu	Thr	Gln	Pro	Leu	Leu	Asn	Leu	Lys	Leu	Asp	Arg	Val	65	70	75	80
Met	Gln	Asp	Ile	Val	Tyr	Lys	Leu	Val	Pro	Gly	Leu	Gln	Asp	Ser	Glu	85	90	95	
Glu	Lys	Arg	Ile	Arg	Glu	Phe	Tyr	Gln	Ser	Arg	Gly	Leu	Asp	Arg	Val	100	105	110	
Thr	Gln	Pro	Thr	Gly	Glu	Glu	Pro	Ala	Leu	Ser	Asn	Leu	Gly	Leu	Pro	115	120	125	
Phe	Ser	Ser	Phe	Asp	His	Ser	Lys	Ala	His	Tyr	Tyr	Arg	Tyr	Asp	Glu	130	135	140	
Gln	Leu	Asn	Leu	Cys	Leu	Glu	Arg	Leu	Ser	Ser	Gly	Lys	Asp	Lys	Asn	145	150	155	160
Lys	Ser	Val	Leu	Gln	Asn	Lys	Tyr	Val	Arg	Cys	Ser	Val	Arg	Ala	Glu	165	170	175	
Val	Arg	His	Leu	Arg	Arg	Val	Leu	Cys	His	Arg	Leu	Met	Leu	Asn	Pro	180	185	190	
Gln	His	Val	Gln	Leu	Leu	Phe	Asp	Asn	Glu	Val	Leu	Pro	Asp	His	Met	195	200	205	
Thr	Met	Lys	Gln	Ile	Trp	Leu	Ser	Arg	Trp	Phe	Gly	Lys	Pro	Ser	Pro	210	215	220	
Leu	Leu	Leu	Gln	Tyr	Ser	Val	Lys	Glu	Lys	Arg	Arg	Leu	Ala	Lys	Pro	225	230	235	240
Pro	Pro	His	Pro	Thr	Pro	Leu	Pro	Ser	Pro	Asp	Ile	Tyr	Val	Lys	245	250	255		

## 3979

&lt;210&gt; 4374

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4374

Met	Xaa	Leu	Leu	Tyr	Phe	Ser	Gln	Gln	Gln	Ala	Arg	Gly	Arg	Asn	Ile
1					5				10					15	

His	Lys	Tyr	Asp	Arg	Ser	Tyr	Met	Lys	Phe	Gly	Ser	Pro	Pro	Ile	Lys
			20					25					30		

Val Ala

&lt;210&gt; 4375

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4375

Cys	Ser	Pro	Leu	Ala	Glu	Glu	Val	Val	Ser	Phe	Leu	Trp	Lys	Asn	Phe
1				5					10					15	

Gln	Asn	Ser	Gly	Phe	Phe	Phe	Phe	Phe	Gly	Val	Phe	His	Gln	Leu	Lys
			20					25					30		

Ser	Asp	Ser	Xaa	Phe	Glu	Phe	Ser	Ser	Tyr	Ile	Cys	Ile	Val	Ser	Ser
			35				40					45			

Phe	Phe	Leu	Pro	Leu	Tyr	Pro	Ser	Cys	Phe	Thr	Leu	Tyr	Leu	Ser	Ile
			50			55					60				

Pro	Cys	Ser	Asn	Tyr	Cys	Lys	Ser	Leu	Tyr	Arg	Lys	Ser	Ser	Val	Ile
65					70					75				80	

## 3980

&lt;210&gt; 4376

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4376

Arg	Val	Phe	Gln	Ala	Trp	Leu	Phe	Thr	Xaa	Ser	Phe	Arg	Gly	Thr	Leu
1				5					10					15	

Lys	Pro	Trp	Arg	His	Leu	Ala	Leu	Glu	Pro	Trp	Arg	Phe	Pro	Cys	His
			20					25					30		

Ser	Pro	Cys	Trp	Asp	Lys	Ala	Arg	Ala	Trp	His	Pro	Gly	Met	Met	Phe
		35					40					45			

Pro	Ala	Ala	Glu	Cys	Ala	His	Asn	Leu	Ser	Ser	Ser	Cys	Val	Arg	Gln
	50					55					60				

Leu	His	Met	Leu	Ala	Ser	Asn	Xaa	Pro	Xaa	Gln	Pro	Ser	Gln	Tyr	Tyr
65						70				75					80

Cys	Phe	Ser	Ser	Ser	Tyr	Arg	Trp	Gly	Asp	Asp	Asp	Ile
				85					90			

&lt;210&gt; 4377

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 3981

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (64)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4377

Lys	Glu	Asn	Glu	Lys	Glu	Ser	Pro	Arg	Gln	Arg	Arg	Gly	Lys	Glu	Asn
1				5					10					15	

Lys	Leu	Arg	His	Ser	Xaa	Phe	Ser	Phe	Leu	Thr	Leu	Cys	Leu	Glu	His
			20					25					30		

His	Thr	Ala	His	Lys	Leu	Phe	Pro	Asn	Ala	Gln	Leu	Ala	Pro	Lys	Val
		35					40					45			

Gly	Ala	Trp	His	Gly	Xaa	Gly	Ala	His	Lys	Thr	Leu	Thr	Lys	Leu	Xaa
	50					55					60				

Ala	Gly	Met	Gly	Glu	Xaa	Leu	Leu	Val	His	Ser	Ser	Tyr	Pro	Leu	Pro
65					70					75					80

Pro	Asn	Pro	Leu	Leu	Ala
				85	

&lt;210&gt; 4378

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (118)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4378

Glu	Lys	Val	Ser	Leu	Ser	Ser	Pro	Ser	Pro	Ala	Thr	Leu	Ala	Met	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 3982

1	5	10	15
Gln Pro Ala Gly Leu Gln Val Asp Tyr Val Phe Arg Gly Val Glu His	20	25	30
Ala Val Arg Val Met Val Ser Gly Gln Val Leu Glu Leu Glu Val Glu	35	40	45
Asp Arg Met Thr Ala Asp Gln Trp Arg Gly Glu Phe Asp Ala Gly Phe	50	55	60
Ile Glu Asp Leu Thr His Lys Thr Gly Asn Phe Lys Gln Phe Asn Ile	65	70	75
Phe Cys His Met Leu Glu Ser Ala Leu Thr Gln Ser Ser Glu Ser Val	85	90	95
Thr Leu Asp Leu Leu Thr Tyr Thr Asp Leu Glu Ser Leu Arg Asn Arg	100	105	110
Arg Trp Gly Ala Ala Xaa Ser Leu Ala Pro Arg Ser Ala Gln Leu Asn	115	120	125
Ser Lys Arg Tyr Leu Ile Leu Ile Tyr Ser Val Glu Phe Asp Arg Ile	130	135	140
His Tyr Pro Leu Pro Leu Pro Tyr Gln Gly Lys Pro Asp Pro Val Val	145	150	155
Leu Gln Gly Ile Ile Arg Ser Leu Lys Glu Glu Leu Gly Arg Leu Pro	165	170	175
Ser Pro Cys Pro Gly Pro Val Pro Pro Ala Ala Pro Gly Gly Leu Arg	180	185	190
Cys Val Arg Pro	195		

&lt;210&gt; 4379

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 3983

<221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4379  
 Xaa Xaa Xaa Xaa Thr Leu Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr  
           1                  5                  10                  15  
 Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn  
                   20                  25                  30  
 Ser Ala Arg Glu Lys Asn Tyr Leu Tyr Ile Thr Leu Lys Gly Val Glu  
           35                  40                  45  
 Gly Leu Phe Ala Glu Leu Leu Arg Leu Lys Tyr Thr Leu Phe Leu Glu  
           50                  55                  60  
 Lys Ile Thr Asp Phe Leu  
           65                  70

<210> 4380  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4380  
 Arg Xaa Trp Glu Thr Ala His Pro Asp Leu Pro Met Ser Gln Asn Lys  
           1                  5                  10                  15  
 His Met Tyr Ser Gly Ser Phe Ser Phe Ser Asn Thr Leu Pro Gln Lys  
           20                  25                  30  
 Gln Val Val Cys Pro Arg His Lys Glu Gly Lys Leu Ala Ile Phe Pro  
           35                  40                  45



## 3984

Thr Ser Lys Phe Cys Lys Ile Ile Asp Leu Leu Lys Arg Phe Leu Phe  
 50 55 60  
 Ile Ile Pro Thr Leu Cys Lys Trp Lys Gly His Cys Val Pro Cys Val  
 65 70 75 80  
 Ser Ser Leu Gln Arg Leu Cys Pro Leu Ala Cys Phe Val Thr Ile Ser  
 85 90 95  
 Leu Gly Glu Glu Trp Val His Pro Ala Pro Arg Pro Val Val Ala Arg  
 100 105 110  
 Gly Leu Pro Cys Glu Phe  
 115

&lt;210&gt; 4381

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4381

Glu Gln Val Val Ser Ile Phe Leu His Tyr Leu Phe Leu Glu Thr His  
 1 5 10 15

Lys Met Asp Cys Ile Phe Leu  
 20

&lt;210&gt; 4382

&lt;211&gt; 173

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (142)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 3985

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (155)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4382

Glu	Tyr	Ile	Lys	Asn	Ser	Gln	Asn	Asn	Ser	Thr	Cys	Glu	Tyr	Gly	Ala
1				5					10					15	

Pro	Cys	Lys	Tyr	Ile	Arg	Lys	Pro	Ile	Asp	Tyr	Thr	Val	Leu	Asp	Asp
			20					25					30		

Val	Gly	His	Gly	Val	Lys	Trp	Leu	Lys	Ala	Lys	His	Gly	Asn	Asn	Gln
		35					40					45			

Pro	Ala	Arg	Thr	Gly	Thr	Leu	Ser	Arg	Thr	Asn	Pro	Pro	Thr	Gln	Lys
	50					55					60				

Pro	Pro	Ser	Pro	Pro	Met	Ser	Gly	Arg	Gly	Thr	Leu	Gly	Arg	Asn	Thr
65					70					75					80

Pro	Tyr	Lys	Thr	Leu	Glu	Pro	Val	Lys	Pro	Pro	Thr	Val	Pro	Asn	Asp
				85					90					95	

Tyr	Met	Thr	Ser	Pro	Ala	Arg	Leu	Gly	Ser	Gln	His	Ser	Pro	Gly	Arg
			100					105					110		

Thr	Ala	Ser	Leu	Asn	Gln	Arg	Pro	Arg	Thr	His	Ser	Gly	Ser	Ser	Gly
		115					120					125			

Gly	Ser	Gly	Lys	Phe	Glu	Glu	Asn	Ser	Gly	Ser	Ser	Ser	Xaa	Gly	Xaa
	130						135				140				

Pro	Xaa	Ala	Val	Pro	Thr	Pro	Ser	Ala	Pro	Xaa	Ile	Leu	Lys	Pro	Phe
145					150					155					160

Val	Asp	Xaa	Ser	Asn	Phe	His	Arg	His	His	Phe	Xaa	Pro
				165						170		

## 3986

&lt;210&gt; 4383

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4383

Leu Glu Val Asp Trp Ser Leu Phe Asp Gly Phe Ala Asp Gly Leu Gly  
 1 5 10 15

Val Ala Glu Ala Ile Ser Tyr Val Asp Pro Gln Phe Leu Thr Tyr Met  
 20 25 30

Ala Leu Glu Glu Arg Leu Ala Gln Ala Met Glu Thr Ala Leu Ala His  
 35 40 45

Leu Glu Ser Leu Ala Val Asp Val Glu Val Ala Asn Pro Pro Ala Ser  
 50 55 60

Lys Glu Ser Ile Asp Ala Leu Pro Glu Ile Leu Val Thr Glu Asp His  
 65 70 75 80

Gly Ala Val Gly Gln Glu Met Cys Cys Pro Ile Cys Cys Ser Glu Tyr  
 85 90 95

Val Lys Gly Glu Val Ala Thr Glu Leu Pro Cys His His Tyr Phe His  
 100 105 110

Lys Pro Cys Val Ser Ile Trp Leu Gln Lys Ser Gly Thr Cys Pro Val  
 115 120 125

Cys Arg Cys Met Phe Pro Pro Pro Leu  
 130 135

&lt;210&gt; 4384

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

3987

<220>  
<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (17)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4384  
Xaa Pro Xaa Leu Gly Arg Ser Gln Xaa Glu Pro Pro Leu Ser Ala Ser  
1 5 10 15  
Xaa Pro Pro Ala Ser Gln Pro Pro Gln Met Arg Phe Leu Pro Leu Pro  
20 25 30  
Pro Arg Asn Gln Asn Pro His Cys Ser Gln Asp Gly Leu Ile Tyr Lys  
35 40 45  
Pro Asp Thr Cys Ser  
50

<210> 4385  
<211> 74  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (65)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (71)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4385  
Gly Arg Gly Xaa Val Asn Ile Leu Ser Ala Leu Phe Pro Arg Gly Ile  
1 5 10 15  
Asn Ile Lys Val Met Asp Ile Leu Lys Ser Gln Phe Asn Phe Phe Leu  
20 25 30

## 3988

Phe Thr Met Gln Tyr Ser Arg Gly Thr Ser Asn Val Asp Leu Val Phe  
                   35                  40                  45

Ser Ser Ser Asn Ala Leu Ile Thr Leu Pro His Arg Val Val Val Gly  
           50                  55                  60

Xaa Asn Lys Thr Leu Trp Xaa Gln Lys Lys  
       65                  70

<210> 4386  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 4386  
 Glu Ala Ser Gly Gln Val Leu Pro Pro Asn Leu Lys Thr Leu Gly Met  
       1                  5                  10                  15

Gln Leu Gly Arg Asp Leu Ser Arg Phe Cys Leu Asp Lys Gln Val Arg  
                   20                  25                  30

Met Ala Glu His Trp Leu Ile Val Asn Gln Cys Phe Phe Ile Tyr Leu  
           35                  40                  45

Lys Tyr Ser Gln Gln Leu Ile Leu Arg Ser Phe Leu Lys Val Leu His  
       50                  55                  60

Leu His Pro His Asn Ser Pro Ile Gln Asn Met Glu Gln Gly Cys Gly  
       65                  70                  75                  80

Ala Val

<210> 4387  
 <211> 63  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4387  
 Gly Asp Ser Val Ser Lys Lys Lys Lys Lys Xaa Val Pro Thr Val Tyr  
       1                  5                  10                  15

## 3989

Val Trp Ala Leu Val Leu Glu Pro Val Leu Lys Glu Ser Gly Gln Ala  
                   20                  25                  30

Gln Trp Leu Thr Pro Val Ile Ser Ala His Trp Glu Ala Glu Val Gly  
           35                  40                  45

Gly Ser Pro Glu Val Arg Ser Ser Arg Pro Ala Trp Pro Thr Trp  
       50                  55                  60

<210> 4388

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4388

Lys Lys Lys Lys Leu Pro Ile Val Thr Leu Ala Val Leu Ile Asn Lys  
   1                  5                  10                  15

Arg Cys Cys Val Arg Ser Pro Val Ser Val Trp Ile Gln Gln Leu Ser  
           20                  25                  30

Arg Glu Ser His Cys Met Gly Val Glu Leu Thr Val Leu Val Ile Cys  
           35                  40                  45

Lys Pro Pro Arg Pro Asn Leu Arg Val Tyr Leu Gly Phe Ser Val Cys  
       50                  55                  60

Pro Leu Gly Phe Cys Phe Thr Leu Phe Trp Cys Arg Phe Ser Ile Tyr  
       65                  70                  75                  80

Ser Gln Ile Ser Phe Met Met Phe Lys Thr Phe Thr Asp Val Lys Trp  
                   85                  90                  95

Arg Lys Gly Thr Glu Lys Lys Ile Phe Thr Lys  
           100                  105

<210> 4389

<211> 49

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

## 3990

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4389

Leu	Pro	Gly	Ser	Cys	His	Ser	Pro	Ala	Ser	Ala	Ser	Arg	Val	Ala	Gly
1				5				10					15		

Thr	Thr	Gly	Thr	Cys	His	His	Thr	Arg	Leu	Leu	Phe	Tyr	Ile	Phe	Ser
			20					25					30		

Xaa	Asp	Xaa	Phe	His	His	Val	Ser	Gln	Asp	Gly	Leu	Asp	Leu	Leu	Thr
		35					40					45			

Ser

&lt;210&gt; 4390

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (95)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4390

Pro	Gln	Ser	Val	Ala	Ala	Gly	Ser	Thr	Ala	Leu	Gly	Ser	Asp	Thr	Val
1				5				10					15		

Met	Val	Pro	Met	Ile	Gly	Gln	Asp	Leu	Xaa	Gly	Glu	Thr	Gln	Glu	Thr
			20					25					30		

Arg	Pro	Cys	Ser	Ser	Arg	Pro	Glu	Gly	Arg	Gly	Ala	Pro	Glu	Leu	Gly
		35					40					45			

Ser Gly Met Pro His Ser Leu Ala Thr Cys Phe Gly Tyr Ala Pro Cys

## 3991

50                                      55                                      60  
 Ser Ser Cys Thr Trp Leu Pro Arg Glu Asn Ser Asp Leu Ser Gly Lys  
 65                                      70                                      75                                      80  
 Trp Ser Gln Trp Leu Cys Gly Arg Pro Phe Leu Gln Pro Gly Xaa Gln  
                                     85                                      90                                      95  
 Ser Gly Phe Pro Trp Asp Cys Val Ala Pro Val Pro Thr Gly Leu Pro  
                                     100                                      105                                      110  
 Ile Pro His Ser His Cys Trp Thr Xaa Thr Arg Thr Gly His Arg Ala  
                                     115                                      120                                      125  
 Ser Phe Cys  
                                     130

<210> 4391  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<400> 4391  
 Lys Thr Val Leu Arg Asp Ser Leu Val Phe Gly Thr Leu Arg Ser Ser  
   1                                      5                                      10                                      15  
 Leu Gly Arg Ser Leu Ala Leu Ile Val Val Leu Lys Arg Val Leu Ser  
                                     20                                      25                                      30  
 Gly Leu Glu Pro Met Leu Ser Leu Leu Phe Met Gly Phe His Asn Ile  
                                     35                                      40                                      45  
 Leu Lys Leu Phe Val  
                                     50

<210> 4392  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 4392  
 Val Phe Gln His Tyr Leu Phe Asp Gln Ser Lys Ile His Phe Pro Ser  
   1                                      5                                      10                                      15  
 Leu Gln Thr Glu His Asn Tyr Ser Cys Leu His Ile His Ile Phe Asp  
                                     20                                      25                                      30



**3992**

Val Pro Thr Phe Cys Ile Leu His Glu Thr Phe Gly Leu Asn Lys Ile  
                   35                                  40                                  45

Leu Arg Ile Leu Tyr Phe Val Ser His Leu Pro Ser Cys Ser Leu Pro  
           50                                  55                                  60

Ser Ser Lys Asp Val Leu Tyr  
   65                                  70

<210> 4393

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4393

Ser Ser Arg Pro Gln Trp Gln Pro Cys Gly Lys Trp Pro Thr Lys Pro  
   1                                  5                                  10                                  15

Tyr Pro Gly Ser Pro Asn Thr Leu Cys Leu Glu Pro Leu Leu Arg Val  
                   20                                  25                                  30

Tyr Ser Leu Arg Gly Leu Cys Gly Arg Ser Met Leu Gln Phe Lys His  
           35                                  40                                  45

Val Ser Thr Thr Leu Leu Arg Ala Ala Trp Glu Arg Thr Gly His Gln  
   50                                  55                                  60

Asp Tyr Leu Phe Lys Tyr Lys Lys Arg Gly Lys His Thr His Gly Lys  
   65                                  70                                  75                                  80

Lys Ile Val Ser Thr Phe Phe Val Lys Pro Met Ser Val Leu Leu His  
                   85                                  90                                  95

Thr Phe His Val Val Leu Cys Lys Cys Leu Ile Cys Val Ile Lys Leu  
                   100                                  105                                  110

Met Gln Val Lys Lys Lys Lys Lys Met Gly Glu Val Ile Pro Cys Xaa  
           115                                  120                                  125

Val Ile Ser Leu Leu Arg Val  
   130                                  135

## 3993

&lt;210&gt; 4394

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4394

Ala Thr Ala Ser Arg Thr Arg Leu Ala Val His Glu Arg Ala Arg Pro  
 1 5 10 15

Gly Trp Arg Trp Gly Arg Ala Glu Ala Ala Glu Val Leu Arg Ala Thr  
 20 25 30

Gly Gly Trp Gln Trp Ala Gly Glu Arg Gly Arg Gln Ala Arg Leu Gly  
 35 40 45

Leu Gly Leu Trp Arg Arg Gly Thr Leu Cys Leu Gly Ser Leu Thr Ala  
 50 55 60

Pro Pro Gly Ser Pro Glu Arg Gly Thr Gly Gly Glu Gly Gly Gly Ser  
 65 70 75 80

Trp Ala Pro Cys Ala Ala Gly Pro Arg Gly Ala Arg Val Ala Ala Gly  
 85 90 95

Ser Ala Gly Pro Asp Arg Val Asn Gly Arg Ala Trp Pro Val Pro Arg  
 100 105 110

Gly Ala Pro Ala Ala Thr Ala Leu Ala Ala Gly Thr Gly Val Leu Arg  
 115 120 125

Gly Arg Ser Leu Pro Phe  
 130

&lt;210&gt; 4395

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 3994

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4395

Ile	Lys	Ile	Thr	Ser	Ile	Cys	Glu	Leu	Asn	Phe	Ile	Ile	Cys	His	Phe
1				5					10					15	

Val	Glu	Ser	Thr	Leu	His	Xaa	Leu	Val	Xaa	Leu	Glu	Leu	Ile	Val	Thr
			20				25						30		

Thr	Arg	Leu	Tyr	Asp	Asn	Ser	Val	Leu	Xaa	Leu	Ile	Pro	Ile	Ile
		35					40					45		

&lt;210&gt; 4396

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4396

Ile	Ser	Leu	Asn	Pro	Cys	Tyr	Val	Phe	Phe	Phe	Ser	Gln	Val	Leu	Gln
1				5				10						15	

Asn	Asp	Tyr	Cys	Thr	Trp	Ser	Ile	Val	Leu	Ile	Val	Asn	Phe	Val	Ile
			20					25					30		

Asn	Leu	Leu	Cys	Val	Lys	Arg	Gly
		35				40	

&lt;210&gt; 4397

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4397

Asp	Pro	Arg	Val	Arg	Pro	Arg	Val	Arg	Lys	Thr	Glu	Arg	Asp	Arg	Lys
1				5					10					15	

Glu	Lys	Leu	Ile	Gln	Glu	Gly	Lys	Leu	Asp	Arg	Thr	Phe	His	Leu	Ser
			20					25					30		

Tyr

&lt;210&gt; 4398

## 3995

&lt;211&gt; 439

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4398

His Glu Gln Pro Ser Ala Pro Ser Leu Arg Pro Ala Leu Pro Ser Cys  
 1 5 10 15

Pro Pro Arg Gln Arg Leu Val Phe Leu Lys Thr His Lys Ser Gly Ser  
 20 25 30

Ser Ser Val Leu Ser Leu Leu His Arg Tyr Gly Asp Gln His Gly Leu  
 35 40 45

Arg Phe Ala Leu Pro Ala Arg Tyr Gln Phe Gly Tyr Pro Lys Leu Phe  
 50 55 60

Gln Ala Ser Arg Val Lys Gly Tyr Arg Pro Gln Gly Gly Gly Thr Gln  
 65 70 75 80

Leu Pro Phe His Ile Leu Cys His His Met Arg Phe Asn Leu Lys Glu  
 85 90 95

Val Leu Gln Val Met Pro Ser Asp Ser Phe Phe Phe Ser Ile Val Arg  
 100 105 110

Asp Pro Ala Ala Leu Ala Arg Ser Ala Phe Ser Tyr Tyr Lys Ser Thr  
 115 120 125

Ser Ser Ala Phe Arg Lys Ser Pro Ser Leu Ala Ala Phe Leu Ala Asn  
 130 135 140

Pro Arg Gly Phe Tyr Arg Pro Gly Ala Arg Gly Asp His Tyr Ala Arg  
 145 150 155 160

Asn Leu Leu Trp Phe Asp Phe Gly Leu Pro Phe Pro Pro Glu Lys Arg  
 165 170 175

Ala Lys Arg Gly Asn Ile His Pro Pro Arg Asp Pro Asn Pro Pro Gln  
 180 185 190

Leu Gln Val Leu Pro Ser Gly Ala Gly Pro Arg Ala Gln Thr Leu Asn  
 195 200 205

Pro Asn Ala Leu Ile His Pro Val Ser Thr Val Thr Asp His Arg Ser  
 210 215 220

Gln Ile Ser Ser Pro Ala Ser Phe Asp Leu Gly Ser Ser Ser Phe Ile  
 225 230 235 240

Gln Trp Gly Leu Ala Trp Leu Asp Ser Val Phe Asp Leu Val Met Val

## 3996

					245						250						255
Ala	Glu	Tyr	Phe	Asp	Glu	Ser	Leu	Val	Leu	Leu	Ala	Asp	Ala	Leu	Cys		
			260					265					270				
Trp	Gly	Leu	Asp	Asp	Val	Val	Gly	Phe	Met	His	Asn	Ala	Gln	Ala	Gly		
		275					280					285					
His	Lys	Gln	Gly	Leu	Ser	Thr	Val	Ser	Asn	Ser	Gly	Leu	Thr	Ala	Glu		
	290					295					300						
Asp	Arg	Gln	Leu	Thr	Ala	Arg	Ala	Arg	Ala	Trp	Asn	Asn	Leu	Asp	Trp		
305					310					315					320		
Ala	Leu	Tyr	Val	His	Phe	Asn	Arg	Ser	Leu	Trp	Ala	Arg	Ile	Glu	Lys		
				325					330					335			
Tyr	Gly	Gln	Gly	Arg	Leu	Gln	Thr	Ala	Val	Ala	Glu	Leu	Arg	Ala	Arg		
			340					345					350				
Arg	Glu	Ala	Leu	Ala	Lys	His	Cys	Leu	Val	Gly	Gly	Glu	Ala	Ser	Asp		
		355					360					365					
Pro	Lys	Tyr	Ile	Thr	Asp	Arg	Arg	Phe	Arg	Pro	Phe	Gln	Phe	Gly	Ser		
	370					375					380						
Ala	Lys	Val	Leu	Gly	Tyr	Ile	Leu	Arg	Ser	Gly	Leu	Ser	Pro	Gln	Asp		
385					390					395					400		
Gln	Glu	Glu	Cys	Glu	Arg	Leu	Ala	Thr	Pro	Glu	Leu	Gln	Tyr	Lys	Asp		
				405					410					415			
Lys	Leu	Asp	Ala	Lys	Gln	Phe	Pro	Pro	Thr	Val	Ser	Leu	Pro	Leu	Lys		
			420					425					430				
Thr	Ser	Arg	Pro	Leu	Ser	Pro											
				435													

&lt;210&gt; 4399

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4399

Leu	Val	Asn	Ser	Met	Thr	Pro	His	Phe	Arg	Cys	Leu	Asn	Thr	Trp	Tyr		
1				5				10					15				

Thr	Arg	Gln	Tyr	Lys	Pro	Ser	Ala	Ser	Asn	Ala	Phe	Met	Val	Cys	Gly		
		20						25					30				

## 3997

Val Leu Tyr Ala Thr Arg Thr Met Asn Thr Arg Thr Glu Glu Ile Phe  
                   35                  40                  45

Tyr Tyr Tyr Asp Thr Asn Thr Gly Lys Glu Gly Lys Leu Asp Ile Val  
           50                  55                  60

Met His Lys Met Gln Glu Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe  
   65                  70                  75                  80

Asp Gln Lys Leu Tyr Val Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp  
                   85                  90                  95

Leu Ser Val Leu Gln Lys Pro Gln  
                   100

&lt;210&gt; 4400

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4400

Leu Pro Ser Pro Phe Leu Glu Thr Val Ser Thr Val Asp Ser Gly Ala  
   1                  5                  10                  15

Pro Thr Asp Leu Ala Gln Leu Pro Thr Val Leu Lys Gln Pro Cys Cys  
                   20                  25                  30

Ser Val Met Ala Ser Gly Gln Phe Val Asn Lys Leu Gln Glu Glu Val  
           35                  40                  45

Ile Cys Pro Ile Cys Leu Asp Ile Leu Gln Lys Pro Val Thr Ile Asp  
   50                  55                  60

Cys Gly His Asn Phe Cys Leu Lys Cys Ile Thr Gln Ile Gly Glu Thr  
   65                  70                  75                  80

Ser Cys Gly Phe Phe Lys Cys Pro Leu Cys Lys Thr Ser Val Arg Lys  
                   85                  90                  95

Asn Ala Ile Arg Phe Asn Ser Leu Leu Arg Asn Leu Val Glu Lys Ile  
                   100                  105                  110

Gln Ser Ser Thr Xaa Pro Leu Arg Cys Ser Pro Lys Gly Lys Glu Ala

## 3998

115                                      120                                      125  
 Thr Leu Pro Glu Ala Pro Gly Asp Val Pro Leu Phe Leu Arg Gly  
 130                                      135                                      140

<210> 4401  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4401  
 Arg Met Glu Thr Ser Val Ile Lys Asp Ile Leu Phe Leu Thr Leu Ser  
 1                                      5                                      10                                      15  
 Arg Leu Leu Thr Cys Ser Leu Asp Tyr Asn Pro Thr Cys Lys Lys Asn  
 20                                      25                                      30  
 Leu Lys Met Val Met Arg Lys Val Arg Tyr Ile Tyr Ile Tyr Val Leu  
 35                                      40                                      45  
 Xaa Phe  
 50

<210> 4402  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 4402  
 Asn Ser Ala Arg Glu Arg Pro Ser Ser Val Lys Ser Leu Arg Ser Glu  
 1                                      5                                      10                                      15  
 Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu Gln Ala Thr  
 20                                      25                                      30  
 Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val Leu Lys Glu  
 35                                      40                                      45  
 Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu Lys Glu Leu  
 50                                      55                                      60  
 Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu Leu Arg Met

## 3999

65                                      70                                      75                                      80

Leu Glu Lys Arg Met Asp Arg Ala Asp Thr Arg Val Ser Phe Arg Gln

   85                                      90                                      95

Thr Arg

&lt;210&gt; 4403

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4403

Thr Lys Phe Xaa Gly Pro Leu Asn His Leu Asn Gly Leu Pro Ser Gly

1                                      5                                      10                                      15

Pro Gly His Ser Lys Ile Lys Pro Glu Arg Leu Val Gln Ala Met Met

   20                                      25                                      30

Gly Ser Gly Ser Arg Thr Cys Leu Ile Ile Pro Ser Ser Ile Asn Ile

   35                                      40                                      45

Asn Thr Asp Leu Lys Ala Asp Lys Lys His Leu Gln Ser Ile Leu Ser

   50                                      55                                      60

Glu Val Phe Tyr Leu Glu Ala Ser Ser Ala

65                                      70

&lt;210&gt; 4404

&lt;211&gt; 305

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4404

Pro Ser Ser His Phe Ala Ser Ile Phe Glu Glu Ser His Val Pro Val

1                                      5                                      10                                      15

Ile Glu Glu Ser Leu Arg Val Gln Ile Cys Glu Lys Ala Glu Glu Leu

   20                                      25                                      30

Lys Asp Ile Val Pro Glu Lys Lys Ser Thr Leu Asn Glu Asn Gln Pro



## 4000

35	40	45
Glu Ile Lys His Gln Ser Leu Leu Gln Lys Asn Val Ser Lys Arg Asp		
50	55	60
Pro Pro Ser Ser His Gly His Ser Asn Lys Lys Asn Leu Leu Lys Val		
65	70	75
Glu Asn Gly Val Thr Arg Arg Gly Arg Ser Val Ser Pro Lys Lys Pro		
	85	90
Ala Ser Gln His Ser Glu Glu His Leu Asp Lys Ile Pro Ser Pro Leu		
	100	105
Lys Asn Asn Pro Lys Arg Arg Pro Arg Asp Gln Ser Leu Ser Pro Ser		
	115	120
Lys Gly Glu Asn Lys Ser Cys Gln Val Ser Thr Arg Ala Gly Ser Gly		
	130	135
Gln Asp Gln Cys Arg Lys Ser Arg Val Val Ala Ser Pro Lys Lys Gln		
	145	150
Gln Lys Ile Glu Gly Ser Lys Ala Pro Ser Asn Ala Glu Ala Lys Leu		
	165	170
Leu Glu Gly Lys Ser Arg Arg Ile Ala Gly Tyr Thr Gly Ser Asn Ala		
	180	185
Glu Gln Ile Pro Asp Gly Lys Glu Lys Ser Asp Val Ile Arg Lys Asp		
	195	200
Ala Lys Gln Asn Gln Leu Glu Lys Ser Arg Thr Arg Ser Pro Glu Lys		
	210	215
Lys Ile Lys Arg Met Val Glu Lys Ser Leu Pro Ser Lys Met Thr Asn		
	225	230
Lys Thr Thr Ser Lys Glu Val Ser Glu Asn Glu Lys Gly Lys Lys Val		
	245	250
Thr Thr Gly Glu Thr Ser Ser Ser Asn Asp Lys Ile Gly Glu Asn Val		
	260	265
Gln Leu Ser Glu Lys Arg Leu Lys Gln Glu Pro Glu Glu Lys Val Val		
	275	280
Ser Asn Lys Thr Glu Asp His Lys Gly Lys Glu Leu Glu Ala Ala Val		
	290	300

Gln

## 4001

305

&lt;210&gt; 4405

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (46)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4405

Ser	Ser	Asn	Arg	Phe	Val	Phe	Lys	Asp	Pro	Asn	Arg	Phe	Val	Ile	Leu
1				5					10					15	

Asn	Lys	His	Val	Ala	Ile	Tyr	Lys	Thr	Cys	Leu	Lys	Val	Leu	Leu	Ser
			20					25					30		

Pro	Trp	Asn	Phe	Phe	Leu	Tyr	Phe	Met	Leu	Ile	Tyr	Leu	Xaa	Phe	Tyr
		35					40					45			

Ser	Leu	Ile	Ile	Ala	Leu	Glu	Arg	Pro	His	His	Cys	Leu	His	Gly	Asn
	50					55					60				

Val	Val	Gly	Thr	Asn	Thr	Trp
65					70	

&lt;210&gt; 4406

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4002

<220>  
<221> SITE  
<222> (20)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (37)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (58)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (79)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (86)  
<223> Xaa equals any of the naturally occurring L-amino acids

## 4003

&lt;400&gt; 4406

Ile Ser Cys Asn Tyr Cys Ser Cys Xaa Asn Ser Cys Glu Trp Leu Xaa  
1 5 10 15

Val Xaa Leu Xaa Val Leu Gly Xaa Xaa Trp Tyr Thr Phe Val Gly Cys  
20 25 30

Xaa Leu Lys Glu Xaa Ala Xaa Pro Val Cys Ser Leu Tyr His Thr Xaa  
35 40 45

Leu Pro Leu Thr Ser Leu Gly Leu Leu Xaa Ser Lys Phe Cys Lys Pro  
50 55 60

Phe Ser Gln Val Gln Arg Tyr Ile Leu Thr Leu Ser Ser Pro Xaa Leu  
65 70 75 80

Leu Ser Arg Asn Phe Xaa  
85

&lt;210&gt; 4407

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4407

Ser Ala Cys Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg His Glu Pro  
1 5 10 15

Pro His Val Ala His Phe Phe Phe Ile Ser Glu Phe Val Val Phe Thr  
20 25 30

Leu Phe

&lt;210&gt; 4408

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

## 4004

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4408

Glu	Ile	Gly	Tyr	Leu	Met	Ser	Lys	Glu	Xaa	Asn	Tyr	Lys	Arg	Thr	Arg
1				5				10					15		

Glu	Tyr	Ile	Arg	Xaa	Leu	Lys	Xaa	Val	Pro	Ser	Ile	Pro	Tyr	Leu	Gly
			20					25					30		

Ile	Tyr	Leu	Leu	Xaa	Leu	Ile	Tyr	Ile	Xaa	Ser	Ala	Tyr	Pro	Ala	Ser
		35				40						45			

Gly	Val	Ile	Met	Glu	Asn	Glu	Gln	Arg	Ser	Asn	Gln	Met	Asn	Asn	Ile
	50					55					60				

Leu	Arg	Ile	Ile	Ala	Asp	Leu	Gln	Val	Ser	Cys	Ser	Tyr	Asp	His	Leu
65					70					75					80

Thr	Thr	Leu	Pro	His	Val	Gln	Lys	Tyr	Leu	Lys	Ser	Val	Arg	Tyr	Ile
				85					90					95	

Glu	Glu	Leu	Gln	Lys	Phe	Val	Glu	Asp	Asp	Asn	Tyr	Lys	Leu	Ser	Leu
		100						105					110		

Arg	Ile	Glu	Pro	Gly	Ser	Ser	Ser	Pro	Arg	Leu	Val	Ser	Ser	Lys	Glu
		115					120					125			

Asp	Leu	Ala	Gly	Pro	Ser	Ala	Gly	Ser	Gly	Ser	Ala	Arg	Phe	Ser	Arg
	130					135					140				

Arg	His	Leu	Ser
145			

<210> 4409

## 4005

<211> 63  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (37)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4409  
Thr Pro Tyr Val Ser Leu Arg Ile Leu Tyr Asp Ser Glu Phe Ser Ile  
1 5 10 15  
Ser Xaa Lys Trp Ser His Phe Cys Phe Val Pro Tyr Asn Ser Thr Glu  
20 25 30  
Ser Phe Phe Phe Xaa Arg Lys Gly Val Gly Lys Gly Lys Trp Glu Lys  
35 40 45  
Thr Trp Asn His Ile Pro Leu Phe Gly Ala Ala Arg Gln Glu Phe  
50 55 60

<210> 4410  
<211> 83  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

## 4006

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4410

Ile	Xaa	Arg	Lys	Ala	Lys	Ile	Ser	Trp	Trp	Lys	Ser	Glu	Val	Thr	Arg
1				5					10					15	

Arg	Ser	Phe	Trp	Ser	Arg	Val	Leu	Met	Ser	Ala	Ala	Pro	Ala	Lys	Pro
			20					25					30		

Leu	Ala	Ser	Cys	Cys	Ala	Xaa	Tyr	Ser	Val	Ser	Lys	Ala	Arg	Ala	Ile
		35					40					45			

Gly	Gln	His	Ser	Pro	Gly	Ser	Xaa	Trp	Ala	Thr	Ser	Ala	Xaa	Phe	Phe
	50					55					60				

Phe	Phe	Phe	Gly	Xaa	Trp	Gln	Arg	His	Gly	Pro	Asn	Gly	His	His	Gln
65					70					75					80

Ser Gly Leu

&lt;210&gt; 4411

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4411

Leu	Asn	Thr	Ser	Tyr	Leu	Tyr	Phe	Phe	Ser	Ile	Ser	Phe	His	Leu	Ser
1				5					10					15	

Val	Ser	Ser	Phe	Ser	His	Asp	Leu	Thr	Cys	Leu	Tyr	Phe	Leu	Leu	Thr
			20					25					30		

Asp	Lys	Ala	Phe	Lys	Asn	Ser
			35			

&lt;210&gt; 4412

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4007

&lt;400&gt; 4412

His Phe Arg Glu Gly Gln Gly Ile Met Met Pro Ser Cys Lys Gly Ser  
1 5 10 15  
Leu Cys Glu Lys Lys Lys Ser Asn Asn Val Asp Phe Lys Ile Thr Lys  
20 25 30  
Asp Ile His Leu Gln Phe Met Lys Gly Lys Cys Ser Leu Asp Thr Lys  
35 40 45  
Leu Ile Lys Leu Asp Gln Glu Ile Leu Glu Leu Asn Ala Lys Asn Asn  
50 55 60  
Pro Cys Ile Tyr Gly Phe Asp Phe Tyr Ile Phe Pro Ala Ser  
65 70 75

&lt;210&gt; 4413

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4413

Val Pro Ile Ile Leu Lys Asn Ser His Lys Tyr Asn Lys Val His Cys  
1 5 10 15  
Phe Arg Val Phe Lys Lys Arg Val Val Pro Lys Ala Ile Leu Thr Leu  
20 25 30  
Leu Cys Tyr His Cys Lys Gly Val Ile Cys Met Tyr Tyr Ile Lys Lys  
35 40 45  
Lys Thr Leu Asn Ala Leu Leu Ser Pro Lys Tyr Leu Val Asn  
50 55 60

&lt;210&gt; 4414

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)



## 4008

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4414

Ile	Leu	Glu	Asp	Leu	Glu	Pro	Glu	Cys	Pro	Leu	Thr	Gln	Gln	Ser	His
1				5					10					15	

Tyr	Trp	Leu	Tyr	Thr	Gln	Arg	Xaa	Ile	Asn	His	Ser	Thr	Ile	Lys	Thr
			20					25					30		

Cys	Ala	Phe	Tyr	Tyr	Lys	Asp	Met	Cys	Met	Phe	Ile	Ala	Ala	Leu	Phe
		35					40					45			

Thr	Ile	Ala	Lys	Thr	Trp	Asn	Gln	Pro	Lys	Cys	Pro	Ser	Met	Ile	Asp
	50					55					60				

Trp	Ile	Lys	Lys	Thr	Trp	His	Ile	Xaa	Thr	Met	Glu	Tyr	Tyr	Ala	Ala
65					70					75					80

Ile	Lys	Lys	Asn	Xaa	Phe	Met	Xaa	Phe	Ala	Gly	Xaa	Trp	Met	Lys	Xaa
			85						90					95	

## 4009

Glu Thr Ile Ile Leu Xaa Lys Leu Thr Gln Glu Gln Lys Thr Lys His  
                   100                  105                  110

Xaa Met Leu Ser Leu Ile Ser Gly Ser  
                   115                  120

<210> 4415  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 4415  
 Pro Leu Leu Gly Ile Tyr Leu Arg Lys Asn Lys Ala Tyr Ile His Met  
       1                  5                  10                  15

Lys Thr Cys Lys  
                   20

<210> 4416  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 4416  
 Leu Pro Val Leu Trp Leu Gly Pro Ser Leu Ser Thr Ser Gly Glu Cys  
       1                  5                  10                  15

Met Cys Leu Ser Asp Gln His His Cys Thr Arg Arg Ser Ser Glu Pro  
                   20                  25                  30

Leu Ala Lys Cys His Thr His Ser Ser Gln Arg Arg Asp Glu Leu Lys  
           35                  40                  45

Leu Tyr Ser Glu Ile Met Lys Pro Glu Pro Val Pro Asp Leu Leu Leu  
       50                  55                  60

Pro Leu Ile Glu Leu Leu Cys Asn Ser Lys Phe Lys Ile Arg Ser Arg  
       65                  70                  75                  80

Glu Arg

<210> 4417  
 <211> 151  
 <212> PRT

## 4010

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4417

Gly	Thr	Ser	Ala	Gly	Ala	Gln	Thr	Lys	Gly	Ala	Leu	Cys	Gln	Leu	Lys
1				5					10					15	

Val	Pro	Thr	Glu	Lys	Leu	Pro	Ser	Pro	Leu	Pro	Thr	Met	Ala	Asp	Glu
			20					25					30		

Ile	Asp	Phe	Thr	Thr	Gly	Asp	Ala	Gly	Ala	Ser	Ser	Thr	Tyr	Pro	Met
		35					40					45			

Gln	Cys	Ser	Ala	Leu	Arg	Lys	Asn	Gly	Phe	Val	Val	Leu	Lys	Gly	Arg
	50					55					60				

Pro	Cys	Lys	Ile	Val	Glu	Met	Ser	Thr	Ser	Lys	Thr	Gly	Lys	His	Gly
65					70					75					80

His	Ala	Lys	Val	His	Leu	Val	Gly	Ile	Asp	Ile	Phe	Thr	Gly	Lys	Lys
				85					90					95	

Tyr	Glu	Asp	Ile	Cys	Pro	Ser	Thr	His	Asn	Met	Asp	Val	Pro	Asn	Ile
			100					105					110		

Lys	Arg	Asn	Asp	Tyr	Gln	Leu	Ile	Cys	Ile	Gln	Asp	Gly	Tyr	Leu	Ser
		115					120					125			

Leu	Leu	Thr	Glu	Thr	Gly	Glu	Val	Arg	Glu	Asp	Leu	Lys	Leu	Pro	Glu
	130					135					140				

Gly	Xaa	Thr	Arg	Gln	Arg	Lys
145					150	

&lt;210&gt; 4418

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4418

Asp	Glu	Glu	Thr	Val	Lys	Thr	Pro	Arg	Lys	Lys	Thr	Cys	Val	His	Phe
1				5					10					15	

Ser	Gly	Lys	Phe	Ser	Asn	Cys	Val	Ile	Gln	Phe	Ser	Phe	Asn	Tyr	Ile
			20					25					30		

## 4011

Ile Trp Leu Tyr Ala Leu Lys Asn Ile Cys Leu Asn Val Pro Gly Phe  
35 40 45  
Leu Leu Val Leu Glu Ser Ala Glu Cys Trp Leu Cys Ser His Ser Tyr  
50 55 60  
Phe Cys Ile Gln Lys Gly Val Thr Pro Phe Ile  
65 70 75

<210> 4419  
<211> 48  
<212> PRT  
<213> Homo sapiens

<400> 4419  
Val Lys Ala Thr Cys Leu Gly Phe Leu Asn His Ile Asn Cys Tyr Ile  
1 5 10 15  
Leu Tyr Phe Ile Ile Ile Leu Cys Val Ser Val Tyr Trp Asn Asn Met  
20 25 30  
Phe Tyr Leu Val Ser Trp Cys Lys Ser Phe Leu Asn Leu Leu Leu Tyr  
35 40 45

<210> 4420  
<211> 38  
<212> PRT  
<213> Homo sapiens

<400> 4420  
Tyr Ala Ser Ser Lys Leu Thr Leu Thr Lys Gly Asn Lys Ser Trp Ser  
1 5 10 15  
Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys  
20 25 30  
Arg Asn Ser Ala Arg Val  
35

<210> 4421  
<211> 59

## 4012

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4421

Ser	Cys	Gln	Ser	Leu	Asp	Xaa	Glu	Val	Ser	Gly	Lys	Ser	Leu	Lys	Tyr
1				5					10					15	

Ala	Phe	Asp	Thr	Gly	Lys	Tyr	Ile	Leu	Leu	Met	Phe	His	Lys	Arg	Ile
			20					25					30		

Leu	Glu	Ser	Val	Glu	Asn	Ile	Asn	Tyr	Phe	His	Glu	Leu	Phe	Leu	Lys
		35					40					45			

Tyr	Asn	Phe	Lys	Val	Leu	Ile	Phe	Leu	Phe	Lys
	50					55				

&lt;210&gt; 4422

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4422

Glu	Val	Ile	Gln	Ile	Thr	Phe	Val	Val	Val	Ile	Phe	Asn	Tyr	Ser	Ser
1				5					10					15	

Thr	Leu	Thr	His	Asp	Glu	Leu	Arg	Asn	Ile	Lys	Asp	Asn	Cys	Cys	Leu
			20					25					30		

Asn	Ser	Thr	Pro	Arg	Asp	Thr	Asp	Leu	Ile	Gly	Leu	Gly	Trp	Arg	Ser
		35					40					45			

Gly	Met	Val	Val	Phe	Phe	Lys	Leu	Gln	Ser	Ser	Ala	Arg	Gln	Leu	Leu
	50					55					60				

Tyr	Val	Gly	Phe
	65		

&lt;210&gt; 4423

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4013

<220>  
 <221> SITE  
 <222> (56)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (59)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (147)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (158)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4423  
 Gly Pro Gly Lys Arg Arg Leu Gln Gly Arg Ser Arg Gly His Met Ala  
           1                  5                  10                  15  
 Glu Gly Asp Ala Arg Ser Asp Gln Arg His Asn Glu Glu Ile Glu Ala  
                   20                  25                  30  
 Met Ala Pro Ile Tyr Gly Glu Glu Trp Cys Val Ile Asp Asp Cys Ala  
           35                  40                  45  
 Lys Ile Phe Cys Ile Arg Ile Xaa Asp Asp Xaa Asp Asp Pro Xaa Trp  
           50                  55                  60  
 Thr Leu Cys Leu Xaa Val Met Leu Pro Asn Glu Tyr Pro Gly Thr Ala  
           65                  70                  75                  80  
 Pro Pro Ile Tyr Gln Leu Asn Ala Pro Trp Leu Lys Gly Gln Glu Arg  
                   85                  90                  95  
 Ala Asp Leu Ser Asn Ser Leu Glu Glu Ile Tyr Ile Gln Asn Ile Gly  
           100                  105                  110

## 4014

Glu Ser Ile Leu Tyr Leu Trp Val Glu Glu Asn Lys Arg Cys Ser Tyr  
 115 120 125

Tyr Lys Asn Leu Gln Val Thr Glu Pro Gly Pro Asp Val Lys Gly Gly  
 130 135 140

Lys Leu Xaa Glu Glu Asp Val Gly Met Trp Lys Val Asp Xaa His Phe  
 145 150 155 160

&lt;210&gt; 4424

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4424

Gly Leu Thr Ile Lys Xaa Ile Glu Lys Glu Thr Leu His Gly Met Ser  
 1 5 10 15

Phe Ile Pro Pro Pro Asn Lys Val Leu Lys Val Phe Ile Leu Pro Ser  
 20 25 30

Ile Phe Leu Lys Leu Phe Tyr Lys Arg Asp Phe Val Glu Val Pro Arg  
 35 40 45

Phe Cys Gln Thr Ser Ser Ser Leu Thr Arg Leu Arg Gly Pro Cys Gln  
 50 55 60

Gln Ser Asn Leu Arg Asp  
 65 70

&lt;210&gt; 4425

&lt;211&gt; 262

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4425

Asp Ser His Gln Ala Arg Ser Arg Arg Leu Glu Ala Leu Trp Ser Pro  
 1 5 10 15

## 4015

Ser Leu Gly Glu Val Ser Ser Ser Thr Met Lys Gly Ile Leu Val Ala  
                     20                    25                    30

Gly Ile Thr Ala Val Leu Val Ala Ala Val Glu Ser Leu Ser Cys Val  
             35                    40                    45

Gln Cys Asn Ser Trp Glu Lys Ser Cys Val Asn Ser Ile Ala Ser Glu  
           50                    55                    60

Cys Pro Ser His Ala Asn Thr Ser Cys Ile Ser Ser Ser Ala Ser Ser  
   65                    70                    75                    80

Ser Leu Glu Thr Pro Val Arg Leu Tyr Gln Asn Met Phe Cys Ser Ala  
                     85                    90                    95

Glu Asn Cys Ser Glu Glu Thr His Ile Thr Ala Phe Thr Val His Val  
             100                    105                    110

Ser Ala Glu Glu His Phe His Phe Val Ser Gln Cys Cys Gln Gly Lys  
           115                    120                    125

Glu Cys Ser Asn Thr Ser Asp Ala Leu Asp Pro Pro Leu Lys Asn Val  
   130                    135                    140

Ser Ser Asn Ala Glu Cys Pro Ala Cys Tyr Glu Ser Asn Gly Thr Ser  
  145                    150                    155                    160

Cys His Gly Lys Pro Trp Lys Cys Tyr Glu Glu Glu Gln Cys Val Phe  
                     165                    170                    175

Leu Val Ala Glu Leu Lys Asn Asp Ile Glu Ser Lys Ser Leu Val Leu  
             180                    185                    190

Lys Gly Cys Ser Asn Val Ser Asn Ala Thr Cys Gln Phe Leu Ser Gly  
           195                    200                    205

Glu Asn Lys Thr Leu Gly Gly Val Ile Phe Arg Lys Phe Glu Cys Ala  
   210                    215                    220

Asn Val Asn Ser Leu Thr Pro Thr Ser Ala Pro Thr Thr Ser His Asn  
  225                    230                    235                    240

Val Gly Ser Lys Ala Ser Leu Tyr Leu Leu Ala Leu Ala Ser Leu Leu  
                     245                    250                    255

Leu Arg Gly Leu Leu Pro  
                     260



## 4016

&lt;210&gt; 4426

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4426

Gln	Leu	Lys	His	Val	Phe	Ser	Gln	Glu	Lys	Met	Thr	Val	Leu	Met	Met
1				5					10				15		

Tyr	Leu	Met	Asn	Leu	Asn	Phe	Lys	Ser	Gly	Ala	Ala	Asn	Trp	Lys	Glu
			20					25					30		

Asp	Leu	Trp	Cys	Phe	Lys	Leu	Leu	Trp	Thr	Leu	Leu	Arg	Asn	Leu	Glu
			35				40					45			

Pro	Met	Glu	Pro	Leu	Phe	Ile	Ala	Met	Gln	Ile	Thr	Ile	Leu	Asn	Glu
	50					55					60				

Cys	Phe	Leu	Lys	Ile	Lys	Tyr
65					70	

&lt;210&gt; 4427

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4427

Ser	Leu	Lys	Pro	Ser	Glu	Lys	Asn	Ile	Phe	Thr	Leu	Phe	Met	Val	Ala
1				5					10				15		

Thr	Ala	Ala	Ile	Cys	Ile	Leu	Leu	Asn	Xaa	Val	Glu	Xaa	Ile	Tyr	Leu
			20					25					30		

Xaa	Ser	Lys	Arg	Cys	His	Glu	Cys	Leu	Ala	Ala	Arg	Lys	Ala	Gln	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35                      40                      45

Pro Pro Leu Leu Pro Asp Arg Pro Arg Asp His Val Lys Lys Thr Ile  
85 90 95

```

<210> 4428
<211> 353
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (75)
<223> Xaa equals any of the naturally occurring L-amino acids

```

Pro Gly Thr Pro Ser Asp Xaa His Pro Leu Gln Pro Trp Gly Ser Leu  
35 40 45

## 4018

Arg Val Ala Ala Lys Ala Xaa Cys Leu Ser Ala Ser Ala Leu Ala Val  
 50 55 60  
 Ile Ala His Val Leu Cys Cys Cys Ser Val Xaa Thr Met Ser Lys Ser  
 65 70 75 80  
 Leu Lys Lys Leu Val Glu Glu Ser Arg Glu Lys Asn Gln Pro Glu Val  
 85 90 95  
 Asp Met Ser Asp Arg Gly Ile Ser Asn Met Leu Asp Val Asn Gly Leu  
 100 105 110  
 Phe Thr Leu Ser His Ile Thr Gln Leu Val Leu Ser His Asn Lys Leu  
 115 120 125  
 Thr Met Val Pro Pro Asn Ile Ala Glu Leu Lys Asn Leu Glu Val Leu  
 130 135 140  
 Asn Phe Phe Asn Asn Gln Ile Glu Glu Leu Pro Thr Gln Ile Ser Ser  
 145 150 155 160  
 Leu Gln Lys Leu Lys His Leu Asn Leu Gly Met Asn Arg Leu Asn Thr  
 165 170 175  
 Leu Pro Arg Gly Phe Gly Ser Leu Pro Ala Leu Glu Val Leu Asp Leu  
 180 185 190  
 Thr Tyr Asn Asn Leu Ser Glu Asn Ser Leu Pro Gly Asn Phe Phe Tyr  
 195 200 205  
 Leu Thr Thr Leu Arg Ala Leu Tyr Leu Ser Asp Asn Asp Phe Glu Ile  
 210 215 220  
 Leu Pro Pro Asp Ile Gly Lys Leu Thr Lys Leu Gln Ile Leu Ser Leu  
 225 230 235 240  
 Arg Asp Asn Asp Leu Ile Ser Leu Pro Lys Glu Ile Gly Glu Leu Thr  
 245 250 255  
 Gln Leu Lys Glu Leu His Ile Gln Gly Asn Arg Leu Thr Val Leu Pro  
 260 265 270  
 Pro Glu Leu Gly Asn Leu Asp Leu Thr Gly Gln Lys Gln Val Phe Lys  
 275 280 285  
 Ala Glu Asn Asn Pro Trp Val Thr Pro Ile Ala Asp Gln Phe Gln Leu  
 290 295 300  
 Gly Val Ser His Val Phe Glu Tyr Ile Arg Ser Glu Thr Tyr Lys Tyr  
 305 310 315 320

Leu Tyr Gly Arg His Met Gln Ala Asn Pro Glu Pro Pro Lys Lys Asn  
325 330 335

Asn Asp Lys Ser Lys Lys Ile Ser Arg Lys Pro Leu Ala Ala Lys Asn  
340 345 350

```
<210> 4429
<211> 45
<212> PRT
<213> Homo sapiens
```

<400> 4429  
Gly Thr Arg Gln Asn Gly Pro Ala Ser His Ser Arg Ala Leu Val Gly  
1 5 10 15

Ile Cys Thr Gly His Ser Asn Pro Gly Glu Asp Ala Arg Asp Gly Asp  
20 25 30

Ala Glu Glu Val Arg Glu Leu Gly Thr Val Glu Glu Asn  
35 40 45

```
<210> 4430
<211> 120
<212> PRT
<213> Homo sapiens
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<400> 4430  
Phe Leu His Leu Pro Ala Ile Phe Ser Gln Thr Phe Leu Arg Val Arg  
1 5 10 15

Ala Asn Arg Gln Thr Arg Leu Asn Ala Arg Ile Gly Lys Met Lys Arg  
20 25 30

Arg Lys Gln Asp Glu Gly Gln Arg Glu Gly Ser Cys Met Ala Glu Asp  
35 40 45

Asp Ala Val Asp Ile Glu His Glu Asn Asn Asn Arg Phe Glu Glu Tyr  
50 55 60

Glu Trp Cys Gly Gln Lys Arg Ile Arg Ala Thr Thr Leu Leu Glu Gly  
65 70 75 80

Gly Phe Arg Gly Ser Gly Phe Ile Met Cys Ser Gly Lys Glu Asn Pro  
85 90 95

## 4020

Asp Ser Asp Ala Asp Leu Asp Val Asp Gly Asp Asp Thr Leu Glu Tyr  
                   100                  105                  110

Gly Glu Ala Thr Ile His Arg Gly  
                   115                  120

<210> 4431

<211> 244

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (173)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (212)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (221)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (232)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4431

Leu Leu Asp Arg Tyr Arg Glu Leu Gln Leu Ser Thr Glu Ser Lys Val  
       1                  5                  10                  15

Thr Glu Phe Leu His Gln Ser Lys Leu Lys Ser Phe Glu Ser Glu Arg  
                   20                  25                  30

Val Gln Leu Leu Gln Glu Glu Thr Ala Arg Asn Leu Thr Gln Cys Gln  
                   35                  40                  45

Leu Glu Cys Glu Lys Tyr Gln Lys Lys Leu Glu Val Leu Thr Lys Glu  
                   50                  55                  60

## 4021

Phe Tyr Xaa Leu Gln Ala Ser Ser Glu Lys Arg Ile Thr Glu Leu Gln  
 65 70 75 80  
 Ala Gln Asn Ser Glu His Gln Ala Arg Leu Asp Ile Tyr Glu Lys Leu  
 85 90 95  
 Glu Lys Glu Leu Asp Glu Ile Ile Met Gln Thr Ala Glu Ile Glu Asn  
 100 105 110  
 Glu Asp Glu Ala Glu Arg Val Leu Phe Ser Tyr Gly Tyr Gly Ala Asn  
 115 120 125  
 Val Pro Thr Thr Ala Lys Arg Arg Leu Lys Gln Ser Val His Leu Ala  
 130 135 140  
 Arg Arg Val Leu Gln Leu Glu Lys Gln Asn Ser Leu Ile Leu Lys Asp  
 145 150 155 160  
 Leu Glu His Arg Lys Asp Gln Val Thr Gln Leu Ser Xaa Glu Leu Asp  
 165 170 175  
 Arg Ala Asn Ser Leu Leu Asn Gln Thr Gln Gln Pro Tyr Arg Tyr Leu  
 180 185 190  
 Ile Glu Ser Val Arg Gln Arg Asp Ser Lys Ile Asp Ser Leu Thr Glu  
 195 200 205  
 Ser Ile Ala Xaa Leu Gly Glu Arg Met Ser Ala Thr Xaa Asn Lys Glu  
 210 215 220  
 Lys Ser Ala Leu Leu Gln Thr Xaa Gly Ile Lys Met Ala Leu Gly Phe  
 225 230 235 240  
 Arg Thr Asn Phe

&lt;210&gt; 4432

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4022

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4432

Ser	Ser	Cys	Cys	Ala	Ser	Leu	Pro	Pro	Thr	Arg	Gly	Glu	Val	Ser	Ala
1				5					10					15	

Xaa	Ser	Leu	Leu	Pro	Pro	Leu	Pro	Pro	Leu	Pro	Pro	Trp	Thr	Ile	Ser
			20					25					30		

Leu	Phe	Pro	Leu	Cys	Ser	Trp	Xaa	Ala	Gln	Leu	Cys	Met	Cys	Val	Trp
		35					40					45			

Gly	Val	Gly	Val	Gly	Ser	Gly	Leu	Ser	Gly	Phe	Gly	Arg	Gly	Leu	Gly
	50					55					60				

Arg	Val	Arg	Gly	Gly	Trp	Arg	Met	Lys	Ser	Pro	Thr	Pro	Phe	Ser	Ser
65					70					75					80

Ser	Arg	Pro	Gln	Lys	Pro	Gly	Lys	Gly	Arg	Val	Pro	Thr	Leu	Gly	Xaa
				85					90					95	

&lt;210&gt; 4433

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4433

Asn	Arg	Ser	Phe	Phe	Val	Ser	Pro	Phe	Lys	Ser	Thr	Gly	Phe	Lys	Arg
1				5					10					15	

Gly	Lys	Cys	Ile	His	Arg	Pro	Gln	Cys	Leu	Ala	Phe	Ser	Ser	Ala	Ser
			20					25					30		

Thr	Trp	Ser	Thr	Gly	Leu	Asp	Ala	Gln	Thr	Tyr	Leu	Gly	Asn	Tyr	Phe
		35					40					45			

## 4023

Gly Arg Cys Leu Ser Leu Tyr Arg Asn Cys Ser Trp Tyr Phe Ile Leu  
 50 55 60

Leu Tyr Ile Tyr Ser Thr Cys Pro Leu Val Phe Asn Tyr Xaa Gln Ser  
 65 70 75 80

Leu Phe Arg Ser Lys Asn  
 85

<210> 4434

<211> 254

<212> PRT

<213> Homo sapiens

<400> 4434

Lys Ala Leu Asn Val Val Gln Ser Val Leu Gln Ile Asn Leu Ser Asn  
 1 5 10 15

Ser Thr Asn Arg Gly Ser Val Ala Ala Lys Lys Phe Lys Asp Ile Ile  
 20 25 30

His Tyr Asp Pro Thr Lys Gln Asp His Ala Thr Tyr Glu Arg Lys Arg  
 35 40 45

Asp Asp Lys Pro Lys Glu Ser Lys Ala Lys Arg Lys Lys Lys Arg Glu  
 50 55 60

Glu Ala Glu Lys Leu Pro Glu Val Ser Lys Glu Met Tyr Tyr Asn Ile  
 65 70 75 80

Ala Met Asp Leu Lys Glu Ile Phe Gln Thr Thr Lys Tyr Thr Ser Glu  
 85 90 95

Lys Glu Glu Gly Thr Pro Trp Asn Glu Asp Cys Gly Lys Glu Lys Pro  
 100 105 110

Glu Glu Ile Gln Asp Pro Ala Ala Leu Thr Ser Asp Ala Glu Gln Pro  
 115 120 125

Ser Gly Phe Thr Phe Ser Phe Phe Asp Ser Asp Thr Lys Asp Ile Lys  
 130 135 140

Glu Glu Thr Tyr Arg Val Glu Thr Val Lys Pro Gly Lys Ile Val Trp  
 145 150 155 160

Gln Glu Asp Pro Arg Leu Gln Asp Ser Ser Ser Glu Glu Glu Asp Val  
 165 170 175



## 4024

Thr Glu Glu Thr Asp His Arg Asn Ser Ser Pro Gly Glu Ala Ser Leu  
 180 185 190

Leu Glu Lys Glu Thr Thr Arg Phe Phe Phe Phe Ser Lys Asn Asp Glu  
 195 200 205

Arg Leu Gln Gly Ser Asp Leu Phe Trp Arg Gly Val Gly Ser Asn Met  
 210 215 220

Ser Arg Asn Ser Trp Glu Ala Arg Thr Thr Asn Leu Arg Met Asp Cys  
 225 230 235 240

Arg Lys Lys His Lys Asp Ala Lys Arg Lys Met Lys Pro Lys  
 245 250

<210> 4435

<211> 75

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4435

Leu Leu Asn Leu Val Lys Ala Val Phe Gly Gln Ala Cys Ala Arg Gly  
 1 5 10 15

His Leu Glu Cys Ser Thr His Trp Gln Ala Ser Pro Ile Pro Ile His  
 20 25 30

Pro Gly Ser Pro Arg Leu Gly Trp Asp Ile Asn Val Gly Ile Gly Lys  
 35 40 45

Lys Tyr Phe Leu Phe Arg Gly Lys Gln Glu Glu Thr Leu Pro Glu Ser  
 50 55 60

Asp Phe Leu Val Ile Ser Ile Ser Thr Glu Xaa  
 65 70 75

<210> 4436

<211> 47

<212> PRT

<213> Homo sapiens

<220>

## 4025

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4436

Lys Leu Ile Arg Asp Xaa Ala Thr Asp Ser Leu Arg Ser Pro Ala Leu  
 1 5 10 15

Pro Leu Asn Lys Cys Trp Cys Ile Gln Met Val Lys Tyr Ser Ala Ala  
 20 25 30

Ile Lys Gly Val Lys Thr Ala Ser Thr Tyr Leu Glu Ala His Leu  
 35 40 45

&lt;210&gt; 4437

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4437

Gly Xaa Asp Thr Leu Glu Ile Gln Gln Gln Ala Leu Leu Arg Glu Gln  
 1 5 10 15

Gln Lys Arg Leu Asn Arg Ile Lys Met Gln Glu Gly Ala Lys Val Asp  
 20 25 30

Leu Asp Ala Ile Pro Ser Ala Lys Val Arg Glu Gln Arg Met Pro Arg  
 35 40 45

Asp Asp Thr Ser Asp Phe Leu Lys Asn Ser Leu Leu Glu Ser Asp Ser  
 50 55 60

Ala Phe Ile Gly Ala Tyr Gly Glu Thr Tyr Pro Ala Ile Glu Asp Asp  
 65 70 75 80

Val Leu Pro Pro Pro Ser Gln Leu Pro Ser Ala Arg Glu Arg Arg Arg  
 85 90 95

Asn Lys Trp Lys Gly Leu Asp Ile Asp Ser Ser Arg Pro Asn Val Ala  
 100 105 110

Pro Asp Gly Leu Ser Leu Lys Ser Ile Ser Ser Val Asn Val Asp Glu  
 115 120 125

## 4026

Leu Arg Val Arg Asn Glu Glu Arg Met Arg Arg Leu Asn Glu Phe His  
 130 135 140  
 Asn Lys Pro Ile Asn Thr Asp Asp Glu Ser Ser Leu Val Asp Pro Asp  
 145 150 155 160  
 Asp Ile Met Lys His Ile Gly Asp Asp Gly Ser Asn Ser Val Ala Thr  
 165 170 175  
 Glu Pro Trp Leu Arg Pro Gly Thr Ser Glu Thr Leu Lys Arg Phe Met  
 180 185 190  
 Ala Glu Gln Leu Asn Gln Glu Gln Gln Ile Pro Gly Lys Pro Gly  
 195 200 205  
 Thr Phe Thr Trp Gln Gly Leu Ser Thr Ala His Gly  
 210 215 220

&lt;210&gt; 4438

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4438

Asn Gly Gly Asn Gly Asn Thr Tyr Leu Lys Leu Leu Arg Glu Leu Asn  
 1 5 10 15  
 Glu Ile Ile Leu Gln Asp Ser Tyr His Ser Lys Ala Val Asn Ala Pro  
 20 25 30  
 Phe Arg Val Pro Leu Leu Leu Thr Ala Leu Lys Ile  
 35 40

&lt;210&gt; 4439

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4439

Tyr Ser Thr Leu Leu Glu Lys Pro Pro Pro Ser Pro Asp Arg Cys Glu  
 1 5 10 15  
 Arg Met Lys Val Thr Met Phe Cys Leu Arg Phe Ser Arg Phe Lys Leu  
 20 25 30  
 Leu Leu Ser Ser Val Ser Arg Asp Phe His Cys Trp Ala Cys Leu  
 35 40 45

## 4027

&lt;210&gt; 4440

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4440

Leu Leu Glu Val Pro Glu Met Gly Leu Thr Phe Ile Lys Gln Ile Ala  
 1 5 10 15

Tyr Tyr Asp Leu Ala Ala Ala Thr Val Gln Leu His Ile Asn Ser Thr  
 20 25 30

Asp Gln Thr Ile Cys Ile Trp His His Leu Leu Thr His Asp Met Arg  
 35 40 45

Leu Phe Cys Ile Asn Cys Tyr Asp Gly  
 50 55

&lt;210&gt; 4441

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4441

Val Val Glu Tyr Arg Ala Val Asn Phe His Ala Phe Phe Pro Asp Ile  
 1 5 10 15

Lys Phe Tyr Ser Lys Lys Ala Thr Ser Asp Cys Thr Lys Asn Ile Lys  
 20 25 30

Ile His Ser Phe Tyr Lys Gly Val Asn Leu Asn Asn Val Ile Asp Trp  
 35 40 45

Asn Met Lys Ile Asn Gln Ser Phe Lys Ser Phe Leu Ala Asn Asp Pro  
 50 55 60

## 4028

Ile Leu Thr Pro Phe Leu Pro Arg Leu Glu Lys His Asn Val Phe Pro  
 65 70 75 80

Pro Lys Val Xaa Asn Pro Arg Lys Ala Pro Val Ser Xaa Thr Asn Val  
 85 90 95

<210> 4442

<211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4442

Asn Ser Ala Ser Gln Arg Ser Ser Ser Leu Pro Pro Ser Asn Arg Lys  
 1 5 10 15

Ser Ser Thr Pro Lys Lys Thr Tyr Ser Glu Lys Ala Thr Asp Asn His  
 20 25 30

Val Asn His Ser Ser Cys Pro Glu Pro Val Pro Asn Gly Val Lys Lys  
 35 40 45

Val Ser Val Arg Thr Ala Trp Glu Lys Asn Lys Ser Val Ser Tyr Glu  
 50 55 60

Gln Cys Lys Pro Val Ser Val Thr Pro Gln Gly Asn Asp Phe Glu Tyr  
 65 70 75 80

Thr Ala Lys Ile Arg Thr Leu Ala Glu Thr Glu Arg Phe Phe Asp Glu  
 85 90 95

Leu Thr Lys Glu Lys Asp Gln Ile Glu Ala Ala Leu Ser Arg Met Pro  
 100 105 110

Ser Pro Gly Gly Arg Ile Thr Leu Gln Xaa Arg Leu Asn Gln Glu Ala  
 115 120 125

## 4029

Leu Glu Asp Arg Leu Glu Gly Leu Ile Glu Asn Trp Gly Ser Xaa Arg  
 130 135 140

Met Thr Leu Lys Asn Ser Met Phe Cys Ala Pro  
 145 150 155

<210> 4443

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4443

Ile Arg Glu Thr Phe Ser Ile Tyr Leu Phe Val Leu Pro Ala Trp Glu  
 1 5 10 15

Ser Asp Ser Thr Lys Tyr Phe Pro Ala Gly Trp Gly Ser Val Ser Gln  
 20 25 30

Arg Asn His Pro Phe Pro Thr Phe Arg Leu Ile Leu Tyr Pro Ser Ile  
 35 40 45

Xaa Pro Val Leu Met Glu Ala Lys Asp Asn Pro Arg Val Phe Ile Gly  
 50 55 60

Asn Ser Leu Glu Leu Cys Ala Ile Val Phe Val Val Leu Leu Pro Phe  
 65 70 75 80

Phe Phe Leu Asn Ile Tyr Val Gly Asn Ser Ile Cys Xaa Gly Ile Leu  
 85 90 95

Xaa

## 4030

&lt;210&gt; 4444

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4444

Thr	Glu	Thr	Cys	Phe	Ala	Trp	Trp	Met	Ser	Ala	Ser	Ser	Pro	Arg	Arg
1				5				10					15		

Pro	Ser	Ser	Glu	Thr	Pro	Ala	Ala	Pro	Thr	Cys	Phe	Leu	Arg	Ser	Ser
			20					25					30		

Ala	Ala	Ala	Val	Thr	Ser	Ala	Ala	Thr	Trp	Xaa	Leu	Cys	Lys	Asp	Ser
			35					40				45			

Ser	Phe	Ser	Glu	Asp	Gly	Ala	Val	Leu	Pro	Gln	Trp	Leu	Cys	Ser	Asn
	50					55					60				

Cys	Gln	Ala	Pro	Tyr	Asp	Ser	Ser	Ala	Ile	Glu	Met	Thr	Leu	Val	Glu
65					70					75					80

Val	Leu	Gln	Lys	Lys	Leu	Met	Ala	Phe	Thr	Leu	Gln	Asp	Leu	Val	Cys
				85					90					95	

Leu	Lys	Cys	Arg	Gly	Val	Lys	Glu	Thr	Ser	Met	Pro	Val	Tyr	Cys	Ser
			100					105					110		

Cys	Ala	Gly	Asp	Phe	Ala	Leu	Thr	Ile	His	Thr	Gln	Val	Phe	Met	Glu
		115					120					125			

Gln	Ile	Gly	Ile	Phe	Arg	Asn	Ile	Ala	Gln	His	Tyr	Gly	Met	Ser	Tyr
	130					135					140				

Leu	Leu	Glu	Thr	Leu	Glu	Trp	Leu	Leu	Gln	Lys	Asn	Pro	Gln	Leu	Gly
145					150					155					160

His

&lt;210&gt; 4445

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4031

<220>  
 <221> SITE  
 <222> (77)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4445  
 Asn Val Phe Val Val Thr Asp Phe Gln Asp Ser Val Phe Asn Asp Leu  
           1                  5                  10                  15  
 Tyr Lys Ala Asp Cys Arg Val Ile Gly Pro Pro Val Val Leu Asn Cys  
                   20                  25                  30  
 Ser Gln Lys Gly Glu Pro Leu Pro Phe Ser Cys Arg Pro Leu Tyr Cys  
           35                  40                  45  
 Thr Ser Met Met Asn Leu Val Leu Cys Phe Thr Gly Phe Arg Lys Lys  
           50                  55                  60  
 Glu Glu Leu Val Arg Leu Val Thr Leu Val His His Xaa Gly Gly Val  
           65                  70                  75                  80  
 Ile Arg Lys Asp Phe Asn Ser Lys Xaa Thr His Leu Val Ala Ile Val  
                   85                  90                  95  
 His Lys Glu Lys Ile Gln Gly Cys Cys Glu Ser Arg Tyr Ser Ile Met  
           100                  105                  110

<210> 4446  
 <211> 254  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4446  
 Ala Glu Asp Pro Ala Gly Gly Leu Ala Gly Gln Asp Thr Met Phe Ala  
           1                  5                  10                  15



## 4032

Arg Gly Leu Lys Arg Lys Cys Val Gly His Glu Glu Asp Val Glu Gly  
                   20                  25                  30  
 Ala Leu Ala Gly Leu Lys Thr Val Ser Ser Tyr Ser Leu Gln Arg Gln  
           35                  40                  45  
 Ser Leu Leu Asp Met Ser Leu Val Lys Leu Gln Leu Cys His Met Leu  
       50                  55                  60  
 Val Glu Pro Asn Leu Cys Arg Ser Val Leu Ile Ala Asn Thr Val Arg  
       65                  70                  75                  80  
 Gln Ile Gln Glu Glu Met Thr Gln Asp Gly Thr Trp Arg Thr Val Ala  
                   85                  90                  95  
 Pro Gln Ala Ala Glu Arg Ala Pro Xaa Asp Arg Leu Val Ser Thr Glu  
           100                  105                  110  
 Ile Leu Cys Arg Ala Ala Trp Gly Gln Glu Gly Ala His Pro Ala Pro  
       115                  120                  125  
 Gly Leu Gly Asp Gly His Thr Gln Gly Pro Val Ser Asp Leu Cys Pro  
       130                  135                  140  
 Val Thr Ser Ala Gln Ala Pro Arg His Leu Gln Ser Ser Ala Trp Glu  
       145                  150                  155                  160  
 Met Asp Gly Pro Arg Glu Asn Arg Gly Ser Phe His Lys Ser Leu Asp  
                   165                  170                  175  
 Gln Ile Phe Glu Thr Leu Glu Thr Lys Asn Pro Ser Cys Met Glu Glu  
           180                  185                  190  
 Leu Phe Ser Asp Val Asp Ser Pro Tyr Tyr Asp Leu Asp Thr Val Leu  
           195                  200                  205  
 Thr Gly Met Met Gly Gly Ala Arg Pro Gly Pro Cys Glu Gly Leu Glu  
       210                  215                  220  
 Gly Leu Ala Pro Ala Thr Pro Gly Pro Ser Ser Ser Cys Lys Ser Asp  
       225                  230                  235                  240  
 Leu Gly Glu Leu Asp His Val Val Glu Ile Leu Val Glu Thr  
                   245                  250

&lt;210&gt; 4447

&lt;211&gt; 169

&lt;212&gt; PRT

## 4033

<213> Homo sapiens

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (159)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4447

Ser	Lys	Val	Lys	Gln	Thr	Glu	Asn	Cys	Gly	Gly	Phe	Val	Gly	Val	Gln
1				5					10				15		

Leu	Arg	Asn	Met	Ala	Gln	Glu	Thr	Asn	His	Ser	Gln	Val	Pro	Met	Leu
			20					25					30		

Cys	Ser	Thr	Gly	Cys	Gly	Phe	Tyr	Gly	Asn	Pro	Arg	Thr	Asn	Gly	Met
		35					40					45			

Cys	Ser	Val	Cys	Tyr	Lys	Glu	His	Leu	Gln	Arg	Gln	Asn	Ser	Ser	Asn
		50				55					60				

Gly	Arg	Ile	Ser	Pro	Pro	Ala	Thr	Ser	Val	Ser	Ser	Leu	Ser	Glu	Ser
65					70					75					80

Leu	Pro	Val	Gln	Cys	Thr	Asp	Gly	Ser	Val	Pro	Glu	Ala	Gln	Ser	Ala
			85						90					95	

Leu	Xaa	Ser	Thr	Ser	Ser	Ser	Met	Gln	Pro	Ser	Pro	Val	Ser	Asn	Gln
		100						105					110		

Ser	Leu	Leu	Ser	Glu	Ser	Val	Ala	Ser	Ser	Gln	Leu	Asp	Ser	Thr	Ser
		115					120					125			

Val	Asp	Lys	Ala	Val	Pro	Glu	Thr	Glu	Asp	Val	Gln	Ala	Ser	Val	Ser
	130					135					140				

Asp	Thr	Ala	Gln	Gln	Pro	Ser	Glu	Xaa	Gln	Ser	Lys	Ser	Leu	Xaa	Lys
145					150					155					160

Pro	Lys	Gln	Lys	Lys	Glu	Ser	Leu	Val
					165			

## 4034

&lt;210&gt; 4448

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4448

Ser	Pro	Ser	Ser	Thr	Ala	Ala	Thr	Ser	Ala	Phe	Arg	Ile	Ala	Ser	Ala
1				5					10					15	

Cys	Leu	Asp	Glu	Leu	Ser	Cys	Glu	Xaa	Leu	Leu	Ala	Gly	Ala	Gly	Gly
		20						25					30		

Ala	Gly	Ala	Gly	Ala	Xaa	Pro	Gly	Thr	Ala	Ser	Pro	Pro	Thr	Gly	Ser
		35					40					45			

Val	Pro	Gly	Asp	Pro	Val	Arg	Ile	His	Cys	Asn	Ile	Thr	Glu	Ser	Tyr
	50					55					60				

Pro	Ala	Val	Pro	Pro	Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu
65					70					75					80

Ala	Ala	Val	Leu	Glu	Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu
				85					90					95	

Leu	Leu	Gln	His	Leu	Lys	Arg	Ile	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr
		100					105					110			

Asn	Leu	Pro	Gln	His	Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro
	115						120					125			

Ala	Glu	Gln	Cys	Thr	Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu
	130					135					140				

Glu	Met	Pro	Glu	Asp	Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu
145					150					155					160

Glu	Glu	Pro	Ala	Glu	Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys
				165					170					175	

## 4035

Glu Asn Leu Ala Ile Leu Glu Lys Ile Lys Lys Asn Gln Arg Gln Asp  
                   180                  185                  190  
 Tyr Leu Asn Gly Ala Val Ser Gly Ser Val Gln Ala Thr Asp Arg Leu  
                   195                  200                  205  
 Met Lys Glu Leu Arg Asp Ile Tyr Arg Ser Gln Ser Phe Lys Gly Gly  
                   210                  215                  220  
 Asn Tyr Ala Val Glu Leu Val Asn Asp Ser Leu Tyr Asp Trp Asn Val  
                   225                  230                  235                  240  
 Lys Leu Leu Lys Val Asp Gln Asp Ser Ala Leu His Asn Asp Leu Gln  
                   245                  250                  255  
 Ile Leu Lys Glu Lys Glu Gly Ala Asp Phe Ile Leu Leu Asn Phe Ser  
                   260                  265                  270  
 Phe Lys Asp Asn Phe Pro Phe Asp Pro Pro Phe Val Arg Val Val Ser  
                   275                  280                  285  
 Pro Val Leu Ser Gly Gly Tyr Val Leu Gly Gly Gly Ala Ile Cys Met  
                   290                  295                  300  
 Glu Leu Leu Thr Lys Gln Gly Trp Ser Ser Ala Tyr Ser Ile Glu Ser  
                   305                  310                  315                  320  
 Val Ile Met Gln Ile Ser Ala Thr Leu Val Lys Gly Lys Ala Arg Val  
                   325                  330                  335  
 Gln Phe Gly Ala Asn Lys Ser Gln Tyr Ser Leu Thr Arg Ala Gln Gln  
                   340                  345                  350  
 Ser Tyr Lys Ser Leu Val Gln Ile His Glu Lys Asn Gly Trp Tyr Thr  
                   355                  360                  365  
 Pro Pro Lys Glu Asp Gly  
                   370

&lt;210&gt; 4449

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4036

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4449

Ala	Glu	Glu	Val	Tyr	Ala	Gln	Leu	Gln	Lys	Met	Leu	Leu	Glu	Gln	Gln
1				5					10					15	

Glu	Lys	Cys	Leu	Leu	Phe	Ser	Lys	Gln	Phe	Met	His	Gln	Gly	Asn	Val
			20					25					30		

Ala	Glu	Thr	Thr	Arg	Phe	Glu	Lys	Leu	Ala	Gln	Asp	Arg	Lys	Lys	Gln
		35						40				45			

Leu	Glu	Ile	Leu	Gln	Leu	Ala	Gln	Ala	Gln	Gly	Leu	Xaa	Pro	Pro	Thr
	50					55					60				

His	His	Phe	Glu	Leu	Lys	Thr	Phe	Xaa	Thr	Val	Arg	Ile	Phe	Ser	Gln
65					70					75					80

Leu	Asn	Ser	Thr	Glu	Met	His	Leu	Ile	Ile	Val	Arg	Gly	Met	Asn	Leu
				85					90					95	

Pro	Ala	Pro	Pro	Gly	Val	Thr	Pro	Asp	Asp	Leu	Asp	Ala	Phe	Val	Arg
			100					105					110		

Phe	Glu	Phe	His	Tyr	Pro	Asp	Ser	Asp	Gln	Ala	Gln	Lys	Ser	Lys	Thr
		115					120					125			

Ala	Val	Val	Asn	Asn	Thr	Asn	Ser	Pro	Xaa	Leu	Ile	Thr	Leu	Gln	Leu
	130					135					140				

Asn Ser

145

&lt;210&gt; 4450

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4450

Ile	Met	Lys	Glu	Ser	Ser	Ser	Val	Leu	Ala	Lys	Cys	Ser	Ser	Ile	Ala
1				5					10					15	

## 4037

Gly Tyr Ile Gln Trp Ser Ser Ile Asn Ser Tyr Leu Ser Gly Leu Asn  
                   20                  25                  30

Gln Asn Cys Val Ser Leu Asn Ser Tyr His Thr Glu Gly Ala Ser Gln  
                   35                  40                  45

Ile Thr Ile Phe Leu Ser Ala Val Phe Leu Gln Lys Ser  
                   50                  55                  60

&lt;210&gt; 4451

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4451

Lys Thr Met Met Met Thr Phe Lys Lys Lys Lys Lys Lys Lys Lys Lys  
   1                  5                  10                  15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa  
                   20                  25

&lt;210&gt; 4452

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4452

Asp His Leu Asp Leu Thr Lys Gly Thr Ile Lys Trp Cys Gln Val Leu  
   1                  5                  10                  15

Gly Ser Arg Arg Val Tyr Lys Lys Lys Met Asn Lys Asp Phe Thr Tyr  
                   20                  25                  30

Trp Gly Ser Gly Ile Thr Gly Cys Leu Asp Cys Pro Ala Thr Gln Leu  
                   35                  40                  45

Pro Pro Ile Lys Ser Phe Ile Thr Leu Gln Glu Gly Pro Asp Ala Ser  
                   50                  55                  60

Ile Ile Ser Thr Pro Cys Phe Ser Val Ile Ser Phe Glu Val Ala Lys  
   65                  70                  75                  80

## 4038

Asn Gly Ser Gln Lys Lys Met Leu Arg Leu Phe Ser Ser Ile Tyr Ser  
85 90 95

Cys Tyr Phe Ala Glu Asp Arg Val Asn Phe Phe Ser  
100 105

<210> 4453

<211> 65

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4453

Ile Ser Gly Lys Trp Leu Thr Glu Arg Thr Ile Arg Cys Val Tyr Ile  
1 5 10 15

Thr Ser Tyr Ser Leu Phe Leu Thr Ala Leu Met Leu Trp His Cys Tyr  
20 25 30

Xaa His Ile Tyr Val Phe Leu Ile Tyr Ser Ser Asp Ser Phe Asn Phe  
35 40 45

Leu Ser Ser Leu Ser Ile Arg Cys Ala His Leu Leu Cys Gln Val Glu  
50 55 60

Val

65

<210> 4454

<211> 293

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

## 4039

<220>  
 <221> SITE  
 <222> (31)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (112)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (242)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (243)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4454  
 Val Pro Gly Pro Ala Arg Gly Leu Gly Arg Leu Arg Arg Gly Val  
   1                  5                  10                  15  
 Xaa Val Arg Gly Arg Arg Thr Xaa Ala Lys Val Ala Ile Lys Xaa Leu  
                   20                  25                  30  
 Tyr Arg Pro Phe Gln Ser Glu Leu Phe Ala Lys Arg Ala Tyr Arg Glu  
           35                  40                  45  
 Leu Arg Leu Leu Lys His Met Arg His Glu Asn Val Ile Gly Leu Leu  
   50                  55                  60  
 Asp Val Phe Thr Pro Asp Glu Thr Leu Asp Asp Phe Thr Asp Phe Tyr  
   65                  70                  75                  80  
 Leu Val Met Pro Phe Met Gly Thr Asp Leu Gly Lys Leu Met Lys His  
                   85                  90                  95  
 Xaa Lys Leu Gly Glu Asp Arg Ile Gln Phe Leu Val Tyr Gln Met Xaa  
           100                  105                  110  
 Lys Gly Leu Arg Tyr Ile His Ala Ala Gly Ile Ile His Arg Asp Leu  
   115                  120                  125



## 4040

Lys Pro Gly Asn Leu Ala Val Asn Glu Asp Cys Glu Leu Lys Ile Leu  
 130 135 140

Asp Phe Gly Leu Ala Arg Gln Ala Asp Ser Glu Met Thr Gly Tyr Val  
 145 150 155 160

Val Thr Arg Trp Tyr Arg Ala Pro Glu Val Ile Leu Asn Trp Met Arg  
 165 170 175

Tyr Thr Gln Thr Val Asp Ile Trp Ser Val Gly Cys Ile Met Ala Glu  
 180 185 190

Met Ile Thr Gly Lys Thr Leu Phe Lys Gly Ser Asp His Leu Asp Gln  
 195 200 205

Leu Lys Glu Ile Met Lys Val Thr Gly Thr Pro Pro Ala Glu Phe Val  
 210 215 220

Gln Arg Leu Gln Ser Asp Glu Ala Lys Asn Tyr Met Lys Gly Leu Pro  
 225 230 235 240

Glu Xaa Xaa Glu Glu Gly Phe Cys Leu Tyr Pro Asp Gln Cys Lys Pro  
 245 250 255

Ser Gly Cys Glu Pro Pro Gly Glu Asp Ala Gly Ala Gly Arg Gly Ala  
 260 265 270

Ala Gly Asp Gly Arg Arg Gly Ala Gly Pro Ser Leu Leu Arg Val Pro  
 275 280 285

Ala Arg His Gly Arg  
 290

<210> 4455

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4455

Thr Arg Gly Leu His Leu Thr Leu Ser Thr Tyr Gln Arg Asn Thr Trp  
 1 5 10 15

Gly Asp Phe Leu Glu Ala Ile Leu Pro Leu Ala Val Gln Ala Ala Met  
 20 25 30

Glu Glu Asn Val Glu Phe Arg Arg Gly Leu Pro Arg Asp Phe Met Asp  
 35 40 45

Tyr Met Gly Ala Gln His Ser Asp Ser Lys Asp Pro Gly Lys Asn Arg

## 4041

50                                      55                                      60  
 Phe His Gly Glu Gly Ala Gly Leu Gly Cys Pro Pro Gly Thr Leu Cys  
 65                                      70                                      75                                      80  
 Ser Cys  
  
 <210> 4456  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (44)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (47)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 4456  
 Xaa Xaa Phe Leu Ser Arg Leu Pro Phe Met Trp Val Lys Asp Lys Val  
 1                                      5                                      10                                      15  
 Glu Asn Thr Leu Leu Tyr Leu Val Ser Arg Val Asn Leu Met Ser Ser  
                                     20                                      25                                      30  
 Ser Leu Cys Phe Glu Ile Phe Trp Asn Val Ile Xaa Asn Tyr Xaa Arg  
                                     35                                      40                                      45  
 Trp Ser Met Tyr Val Leu Gly Leu Val Leu Met Phe Asn Met His Tyr  
                                     50                                      55                                      60  
 Leu Ile Gln Ser Ser Gln Gln Ser  
 65                                      70

## 4042

&lt;210&gt; 4457

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4457

Asp His Val Leu Cys Arg Asp Met Asp Glu Ala Gly Thr Ile Ile Leu  
 1 5 10 15

Ser Lys Leu Thr Glu Glu Gln Glu Thr Lys His His Met Phe Ser Leu  
 20 25 30

Val Ser Gly Thr Glu Gln  
 35

&lt;210&gt; 4458

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4458

Pro Arg Phe Cys Gly Ala Leu Arg His Ser Leu Asn Ala Thr Leu Thr  
 1 5 10 15

Pro Arg Leu Glu Asn Pro Val Leu Met Trp Trp Ala Gly Pro Leu Leu  
 20 25 30

Met Glu Asp Gly Gly Asp Gly Val Val Leu Lys Gly Ser Val Val Leu  
 35 40 45

Glu Val Tyr Thr Pro Leu Arg Thr Ala Cys Gln Glu Pro Gln Ser Ser  
 50 55 60

Phe Thr Ser Ala Lys Ala Glu Arg Glu Arg Thr Trp Glu Ala Phe Cys  
 65 70 75 80

Ser Leu Ser Tyr Pro Ser Ile Asn Ser Ile Ile Val Asp Ala Lys Gly  
 85 90 95

Asp Gly Asp Val Pro Ser Thr Val Val Ala Val Thr Thr Leu Thr Ser  
 100 105 110

Leu Ser

## 4043

<210> 4459  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (34)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (46)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4459  
 Asn Gln Asn Tyr Xaa Trp Glu Lys Asn Lys Phe Ile Tyr Glu Asn Val  
           1                  5                  10                  15  
 Lys Ile Ile Leu Lys Val Leu Phe Ser Asn Lys Met Glu Lys Leu Val  
                   20                  25                  30  
 Lys Xaa Xaa Lys Lys Lys Lys Lys Lys Arg Xaa Pro Leu Xaa Gly  
           35                  40                  45

<210> 4460  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 4460  
 Ser Ala Leu Phe Ser Leu Ala Glu Asp Lys Gly Ile His Ala Ala Pro  
           1                  5                  10                  15

## 4044

Arg Phe Leu Val Ala Arg Leu Arg Thr Lys Gln Leu Arg Ser Ser His  
                     20                    25                    30  
 Ser Asp Pro Asn Val Leu Thr Val Leu Phe Leu Ile Thr Val Thr Leu  
                     35                    40                    45  
 Lys Val Gln Ala Lys Cys Cys Gln Thr Pro Trp Leu Lys Gln Trp Arg  
                     50                    55                    60  
 Val Met Gly Lys Ala Val Glu Gly Pro Gln Pro Thr His Trp Leu Lys  
                     65                    70                    75                    80  
 Leu Pro Pro Thr Ala Thr Met Asn Pro Thr Ala Val Tyr Ala Pro Ile  
                     85                    90                    95  
 Phe Leu Phe Leu Tyr Leu His Pro His Asp Ser Gln Cys Trp Ile Phe  
                     100                    105                    110  
 Leu His Glu  
                     115

&lt;210&gt; 4461

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4461

Gln Ser Met Val Val Ser His Tyr Ala Arg Pro Asp Leu Pro Leu Leu  
                     1                    5                    10                    15  
 Met Val Ile Ser Cys Glu Ser Phe Phe Leu Pro Leu His Ser Phe Tyr  
                     20                    25                    30  
 Ser Val Tyr Ser Pro Met Pro His Pro Lys Ser Cys Thr Val Asn Trp  
                     35                    40                    45  
 Pro Val Lys Gly Thr Pro Thr Phe Lys Gln Gly Arg Gln Asp Thr Thr  
                     50                    55                    60  
 Gly Arg Arg Leu Ile Ala Gln Thr Leu Asp Cys Ser Gly Trp Asp Gln  
                     65                    70                    75                    80  
 Ile Leu Ala Pro Leu Leu Ala Ser Cys Val Ala Leu Gly Lys Leu Leu  
                     85                    90                    95  
 Asn Leu Ser Gly Pro Gln Phe Leu Pro Leu  
                     100                    105

## 4045

&lt;210&gt; 4462

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4462

Phe	Tyr	Tyr	Phe	Ser	Leu	Phe	Lys	Xaa	Glu	Xaa	Gln	Ile	Glu	Ser	Xaa
1				5				10						15	

Gln	Ile	Leu	Gln	Met	Thr	Gly	Ile	Phe	Val	Ser	Xaa	Leu	Ser	Phe	Cys
		20						25					30		

Val	Phe	Phe	Leu	Asn	Lys	Ile	Phe	Arg	Gly	Asn	Ala	Phe	Thr	Glu	Lys
		35					40					45			

Lys

&lt;210&gt; 4463

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4463

Ile	Arg	His	Glu	Ser	Lys	Arg	Asn	Gln	Val	Ser	Tyr	Val	Arg	Pro	Ala
1				5				10					15		

Glu	Pro	Ala	Phe	Leu	Ala	Arg	Phe	Lys	Glu	Arg	Val	Gly	Tyr	Arg	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4046

	20		25		30										
Gly	Pro	Thr	Val	Glu	Thr	Lys	Arg	Ile	Gln	Pro	Gln	Pro	Pro	Asp	Glu
	35						40					45			
Asp	Gly	Asp	His	Ser	Asp	Lys	Glu	Asp	Glu	Gln	Pro	Gln	Val	Val	Val
	50					55					60				
Leu	Lys	Lys	Gly	Asp	Leu	Ser	Val	Glu	Glu	Val	Met	Lys	Ile	Lys	Ala
	65				70					75					80
Glu	Ile	Lys	Ala	Ala	Lys	Ala	Asp	Glu	Glu	Pro	Thr	Pro	Ala	Asp	Gly
				85					90					95	
Arg	Ile	Ile	Tyr	Arg	Lys	Pro	Val	Lys	His	Pro	Ser	Asp	Glu	Lys	Tyr
			100					105					110		
Ser	Gly	Leu	Thr	Ala	Ser	Ser	Lys	Lys	Lys	Lys	Pro	Asn	Glu	Asp	Glu
		115					120					125			
Val	Asn	Gln	Asp	Ser	Val	Lys	Lys	Asn	Ser	Gln	Lys	Gln	Ile	Lys	Asn
	130					135					140				
Ser	Ser	Leu	Leu	Ser	Phe	Asp	Asn	Glu	Asp	Glu	Asn	Glu			
145					150					155					

&lt;210&gt; 4464

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4464

Asn	Tyr	Asp	Cys	Phe	Xaa	Xaa	Ser	Pro	Phe	Gly	Thr	Arg	Ser	Phe	Gln
1				5					10					15	

Leu	Lys	Gly	Arg	Gly	Asn	Ile	Tyr	Leu	Lys	Ser	Ser	Ile	His	Glu	Arg
			20					25					30		

Lys	Arg	Met	Glu	Thr	Met	Ser	Ser	Val	Leu	Leu	Leu	Pro	Lys	His	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4047

35                                      40                                      45  
 Cys Met Cys Val His Val Cys Trp Arg Val Cys Val Cys Met His Ile  
     50                                      55                                      60  
 Ser Lys Cys Val Phe Ala Cys Val Cys Trp Gly Val Tyr Val Ile Trp  
     65                                      70                                      75                                      80  
 Val Phe Val Tyr Leu Cys Tyr Tyr Ser Pro Leu Ala Leu Phe  
                                     85                                      90

&lt;210&gt; 4465

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4465

Arg Trp Ala Arg Val Glu Ala Ala Val Met Glu Gly Ala Gly Ala Gly  
     1                                      5                                      10                                      15

Ser Gly Phe Arg Lys Glu Leu Val Ser Arg Leu Leu His Leu His Phe  
                                     20                                      25                                      30

Lys Asp Asp Lys Thr Lys Val Ser Gly Asp Ala Leu Gln Leu Met Val  
                                     35                                      40                                      45

Glu Leu Leu Lys Val Phe Val Val Glu Ala Ala Val Arg Gly Val Arg  
     50                                      55                                      60

Gln Ala Gln Ala Glu Asp Ala Leu Arg Val Asp Val Asp Gln Leu Glu  
     65                                      70                                      75                                      80

Lys Val Leu Arg Ser Cys Ser Gly Leu Leu Gly Ile Ser Ala Val Ala  
                                     85                                      90                                      95



## 4048

Xaa Ala Thr Pro Arg Gly Ala Pro Gly Pro Gln Lys Gln Ala Leu Cys  
                   100                  105                  110  
 Phe Gln Arg Pro Leu Ile Arg Gly Arg Glu Gly Xaa Glu Gly Phe Gly  
                   115                  120                  125  
 Xaa Asp Ser Asn Lys Ile Ser Gly Ser Leu Gln Pro Val Gln Lys Gly  
                   130                  135                  140  
 Gln Asp Cys Ser Ala Leu Arg Ala Leu Glu Cys Pro Val Gly Thr Leu  
                   145                  150                  155                  160  
 Val Trp Glu Gly Ala Ala Pro Gly Glu Ser Leu Pro Leu Leu Pro Gly  
                                   165                  170                  175  
 Thr Ile Val Cys Met Pro Pro Gly Val Leu Gln Ala Gly Ala Gly Lys  
                   180                  185                  190  
 Gly Leu Ala Ser Arg  
                   195

&lt;210&gt; 4466

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4466

Lys Ala Trp Ser Ala Phe Arg Gly Ile Arg Arg Lys His Arg Lys Ser  
   1                  5                  10                  15  
 Leu Leu Ser Arg Ser Trp Ala Pro Leu Pro Leu Gly Gln Arg Thr Gly  
                   20                  25                  30  
 Asn Arg Gly Ser Gly Ile Ser Gly Pro Ala Arg Glu Arg Ser Ser Arg  
                   35                  40                  45  
 Ala Arg Ser Cys Pro Ala Asn His Ala Ala Pro Trp Ala Glu Ala Ala  
                   50                  55                  60  
 Pro Ala Met Ala Leu Gly Pro Ala Pro Ala Gln Gly Xaa Leu Ser Pro  
   65                  70                  75                  80  
 Ala Cys Trp Ala Pro Pro Trp Tyr Ile Ala Ser Ser Arg Thr Gln Ile

## 4049

85

90

95

Thr Pro

&lt;210&gt; 4467

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4467

Gly Leu Pro His Arg Ile Ile Met His Ser Pro Leu Leu Met His Val  
 1 5 10 15

Lys Phe Leu Leu Gly Lys Leu Thr His His Leu Thr Thr Ile Leu Ser  
 20 25 30

Thr Ile Glu Tyr Ile Leu Phe His Lys Phe Gly Ile His Ser Glu  
 35 40 45

&lt;210&gt; 4468

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4468

Phe Thr Asn Ala Phe Gly Gln Leu Asp Val Thr Asp Phe Ile Leu Cys  
 1 5 10 15

Asp Tyr Asn Lys Lys His Asn Phe Leu Lys Lys Lys Lys Lys Lys Lys  
 20 25 30

## 4050

Lys Lys Gly Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met  
           35                          40                          45  
 Arg Arg His Ser Ser Ser Ile Xaa Ser Pro Lys Phe Asn Ser Leu Ala  
           50                          55                          60  
 Arg Xaa Phe Thr Thr Xaa  
       65                          70

&lt;210&gt; 4469

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4469

Trp Xaa Tyr Arg Ile Leu Asn Arg Ile Gln Phe Asp Met Thr Ala Lys  
       1                          5                          10                          15  
 Asn Val Gly Leu Thr Ser Thr Asn Ala Glu Val Arg Gly Phe Ile Asp  
           20                          25                          30  
 Gln Asn Leu Ser Pro Thr Lys Gly Asn Ile Ser Phe Val Ala Phe Pro  
           35                          40                          45  
 Val Ser Asn Thr Asn Ser Pro Thr Lys Ile Leu Pro Lys Thr Leu Gly  
           50                          55                          60  
 Pro Ile Asn Val Asn Val Gly Pro Gln Met  
       65                          70

&lt;210&gt; 4470

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4051

&lt;222&gt; (134)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (170)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4470

Leu	Pro	Leu	Tyr	Thr	Gly	Ser	Ser	Arg	Gly	Glu	His	Ala	Pro	Pro	Pro
1				5					10					15	

Trp	Ser	Pro	Pro	Arg	Ala	Val	Asn	Leu	Gly	Ser	Xaa	Ser	Arg	Ala	Val
			20					25					30		

Thr	Leu	Pro	Glu	Ala	Pro	Pro	Pro	Arg	Arg	Arg	Pro	Gly	Ala	Val	Asn
		35					40					45			

Pro	Ser	Leu	Ala	Ala	Ala	Glu	Ser	Ala	Pro	Gly	Gln	Ala	His	Leu	Arg
	50					55					60				

Ile	Asn	Ala	Leu	Met	Ala	Ser	Pro	Arg	Arg	Glu	Ser	Leu	Gly	Met	Val
65					70					75					80

Phe	Ser	Thr	Val	Lys	Thr	Phe	Glu	Pro	Pro	Glu	Arg	Leu	Thr	Pro	Ala
				85					90					95	

Pro	Leu	Arg	Gly	His	Phe	Ile	Gln	Lys	Leu	Asn	His	Ser	Glu	Phe	Gln
			100					105					110		

His	Cys	Arg	Gly	Ser	Ser	Gly	Ser	Val	His	Arg	His	Ser	Leu	Ala	Leu
		115					120					125			

Ser	Pro	Thr	Glu	Pro	Xaa	Arg	Asp	Leu	Gly	Pro	Ser	Trp	Gly	Leu	Phe
	130					135					140				

Ile	Val	Glu	Lys	Ala	Ser	Cys	Gln	Thr	Arg	Ile	Cys	Gly	Arg	Gly	Gln
145					150					155					160

Ala	Gly	Gly	Leu	Gly	Arg	Trp	Gln	Trp	Xaa	Val	Ser	Ala	His	Gly	Cys
				165					170					175	

Gly Trp

&lt;210&gt; 4471

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4052

&lt;400&gt; 4471

```

Leu Arg Trp Lys Gly Arg Tyr Ser Glu Asn Asp Val Lys Asn Trp Thr
 1              5              10              15

Pro Glu Leu Gln Lys Tyr Leu Asn Phe Asp Pro Arg Thr Ala Gln Lys
          20              25              30

Ile Asp Asn Gly Ile Phe Trp Ile Ser Trp Asp Asp Leu Cys Gln Tyr
          35              40              45

Tyr Asp Val Ile Tyr Leu Ser Trp Asn Pro Gly Leu Phe Lys Glu Ser
          50              55              60

Thr Cys Ile His Ser Thr Trp Asp Ala Lys Gln Gly Pro Val Lys Asp
 65              70              75              80

Ala Tyr Ser Leu Ala Asn Asn Pro Gln Tyr Lys Leu Glu Val Gln Cys
          85              90              95

Thr Thr Gly Gly Cys Cys Ser Leu Gly Phe Ala
          100              105

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&lt;210&gt; 4472

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4472

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Ala Trp Ala Asp Ala Trp Gly Glu Phe Ser Ala Leu Arg Ala Glu Asn
 1              5              10              15

Glu Lys Ile Lys Leu Glu Leu His Gln Leu Lys Gln Gln Val Met Asp
          20              25              30

Glu Val Ile Lys Val Arg Thr Asp Thr Lys Leu Asp Phe Asn Leu Glu
          35              40              45

Lys Ser Arg Val Lys Glu Leu Tyr Ser Leu Asn Glu Lys Lys Leu Leu
          50              55              60

Glu Leu Arg Thr Glu Ile Val Ala Leu His Ala Gln Gln Asp Arg Ala
 65              70              75              80

Leu Thr Gln Thr Asp Arg Lys Ile Glu Thr Glu Val Ala Gly Leu Lys
          85              90              95

Thr Met Leu Glu Ser His Lys Leu Asp Asn Ile Lys Tyr Leu Ala Gly
          100              105              110

```

## 4053

Ser Ile Phe Thr Cys Leu Thr Val Ala Leu Gly Phe Tyr Arg Leu Trp  
 115 120 125

Ile

<210> 4473

<211> 34

<212> PRT

<213> Homo sapiens

<400> 4473

Ala Cys Ser Asn Ala Cys Lys Thr Thr Tyr His Ser Ala Leu Val Phe  
 1 5 10 15

Leu Ile Gln Glu Gly Arg Ala Val Asn Leu Phe Gly Ala Asn Val Lys  
 20 25 30

Cys Lys

<210> 4474

<211> 90

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4474

Thr Tyr Tyr Gln Asn Phe Phe Lys Glu Phe Phe Met Lys Asp Phe Pro  
 1 5 10 15

Pro Leu Gln Glu Arg Asn Xaa Val Leu Pro Phe Cys Leu Val Lys Ala  
 20 25 30

Glu Phe Ala Val Ala Ser Lys Glu Thr Phe Leu Asn Lys Asn Tyr Val  
 35 40 45

Leu Trp His Asn Pro Phe Phe Glu Leu Tyr Arg Glu Gln Ser Phe Gly  
 50 55 60

Asn Ser Gly Arg Tyr Leu Phe Leu Leu Asn Ile Tyr Pro Ile Ile Gly  
 65 70 75 80

4054

Ile Thr Val Thr Tyr Leu Gly Phe His His  
85 90

<210> 4475

<211> 43

<212> PRT

<213> Homo sapiens

<400> 4475

Phe Lys Tyr Val Lys Cys Gly Ser Phe Thr Pro His His Ser Glu His  
1 5 10 15

Thr Gly Glu Met Cys Phe Phe Gly Lys Leu Lys Gly Ala Ser Ser Leu  
20 25 30

Ile Gln Arg Asn Ile Ser His Val Cys Ser Phe  
35 40

<210> 4476

<211> 104

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$ 

&lt;221&gt; SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4476

Ser Trp Arg Ser Asn Asn Ser Arg Lys Ser Ser Ala Asp Thr Glu Phe  
1 5 10 15

Ser Asp Glu Cys Thr Thr Ala Glu Arg Val Leu Met Lys Ser Pro Ser  
20 25 30

Pro Ala Leu His Pro Pro Gln Lys Tyr Lys Asp Arg Gly Ile Leu His  
35 40 45

Pro Lys Arg Gly Thr Glu Asp Arg Ser Asp Gln Ser Ser Leu Lys Ser  
50 55 60

Thr Asp Ser Ser Ser Tyr Pro Ser Pro Cys Ala Ser Pro Ser Pro Pro  
65 70 75 80

Ser Ser Gly Lys Gly Leu Lys Ile Ser Phe Xaa Lys Thr Lys His Ala  
85 90 95

## 4055

Cys Ser Ile Leu His Asn Glu Glu  
100

<210> 4477

<211> 87

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4477

Thr Val Val Glu Val Tyr Val Phe Val Tyr Leu Pro Ala Phe Glu Asn  
1 5 10 15

Gly Gln Ile Asp Lys Leu Ser Leu Thr Asp Leu Gly Ala Leu Trp Ala  
20 25 30

Gly Ile Lys Thr Glu Gly Gly Leu Ser Gln Ser Gln Ser Pro Gly Gln  
35 40 45

Thr Xaa Phe Leu Ser Tyr Gly Thr Ser Phe Ser Thr Pro Gln Pro Gly  
50 55 60

Gln Ala Pro Tyr Ser Tyr Gln Met Gln Gly Leu Tyr Ile His Ile Ala  
65 70 75 80

Ile Phe Leu Asn Pro Val Gly  
85

<210> 4478

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4478

Leu Gln Arg Arg Arg Glu Gln Lys Gln Arg Arg His Asp Ala Gln Gln  
1 5 10 15

Leu Gln Gln Leu Lys His Leu Glu Ser Phe Tyr Glu Lys Pro Pro Pro  
20 25 30

Gly Leu Ile Lys Glu Asp Glu Thr Lys Pro Glu Asp Cys Ile Pro Asp  
35 40 45



## 4056

Val Pro Gly Asn Glu His Ala Arg Glu Phe Leu Ala His Ala Pro Thr  
 50 55 60

Lys Gly Leu Trp Met Pro Leu Gly Lys Glu Val Lys Val Met Gln Cys  
 65 70 75 80

Trp Arg Cys Lys Pro Met Val Thr Glu Arg Val Thr Lys Asn Ala Leu  
 85 90 95

Ser Leu Ser Lys Ala Thr Lys Ser  
 100

<210> 4479

<211> 126

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4479

Leu Val Lys Cys Asn Tyr Cys Asn Phe Phe Pro Ile Gln Leu Tyr Ile  
 1 5 10 15

Ser Leu Thr Asp Asp Gln Ile Ile Val Val Leu Asn Gln Phe Val Val  
 20 25 30

Ser Lys Cys Phe Val Gly Phe Cys Leu Phe Val Phe Lys Glu Gln Phe  
 35 40 45

Gly Ser Leu Asp Met Val Leu Gln Arg Asp Xaa Met Gly Cys Xaa Trp

## 4057

50                                      55                                      60  
 Phe Trp Val Ile Thr Asp Leu Leu Asp Asn Leu Asp Lys Gln Pro Ser  
 65                                      70                                      75                                      80  
 Cys His Val Cys Leu Ser Asn Leu Lys Cys Ser Leu Tyr Phe Met Phe  
                                     85                                      90                                      95  
 Leu Glu Xaa Leu Ser Xaa Lys Asp Leu Thr Leu Trp Gln Ile Cys Leu  
                                     100                                      105                                      110  
 Asn Arg Asp Thr Thr Met Leu Pro Asn Lys Ala Phe Trp Pro  
                                     115                                      120                                      125

<210> 4480  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 4480  
 Val Thr Asn Leu Val Ile Ile Phe Phe Leu Ile Gln Pro Gln Lys Leu  
 1                                      5                                      10                                      15  
 Ala Ile Leu Lys Arg Leu Met Phe Thr Asn Gly Lys Asn Glu Met Thr  
                                     20                                      25                                      30  
 Leu His Leu Leu Arg Glu Asn Ser Leu Arg His Ser Leu Ser Lys Leu  
                                     35                                      40                                      45  
 Tyr Phe Phe Tyr Leu Ile Leu Lys Thr Ser Ala Pro Lys Ser Val Ser  
                                     50                                      55                                      60  
 Ile Phe Pro Glu Cys Leu  
 65                                      70

<210> 4481  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

## 4058

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4481

Glu	Leu	Arg	Gln	Phe	Ser	Xaa	Met	Asn	Arg	Tyr	Asn	Leu	Lys	Pro	Asn
1				5					10					15	

Gln	Thr	Arg	Lys	Leu	Arg	Gly	His	Arg	Met	Pro	Val	Leu	Gly	Trp	Ala
		20						25					30		

Thr	Pro	Leu	Leu	Phe	Val	Lys	Met	Xaa
		35					40	

&lt;210&gt; 4482

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4482

Asn	Leu	Asn	Gly	Xaa	Leu	Ile	Phe	Pro	Leu	Cys	Pro	Leu	Val	Pro	Cys
1				5					10					15	

Lys	Met	Leu	Gly	His	Pro	Lys	Glu	Arg	Gly	Glu	Ile	Ala	Met	Val	Val
			20					25					30		

Pro	Lys	Val	Leu	Leu	Ala	Leu	His	Val	Phe	Leu	Lys	Ser	Arg	Thr	Trp
		35					40					45			

Ser	Phe	Ser	Phe	Met
				50

&lt;210&gt; 4483

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 4059

<221> SITE  
 <222> (60)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (72)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (80)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4483  
 Cys Arg Gln Glu Arg Ala Val Ala Pro Ala Arg Arg Ala Met Glu Arg  
   1                  5                  10                  15  
 Ile Pro Ser Ala Gln Pro Pro Pro Ala Cys Leu Pro Lys Ala Pro Gly  
                   20                  25                  30  
 Leu Glu His Gly Asp Leu Pro Gly Met Tyr Pro Ala His Met Tyr Gln  
           35                  40                  45  
 Val Tyr Lys Ser Arg Arg Gly Ile Lys Arg Xaa Xaa Asp Ser Lys Glu  
       50                  55                  60  
 Thr Tyr Lys Leu Pro Xaa Arg Xaa Ile Glu Lys Arg Asp Xaa Thr Xaa  
   65                  70                  75                  80

<210> 4484  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<220>

## 4060

<221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (96)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (106)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4484  
 Ser Phe Gln Gln Glu Met Val Thr Ile Arg Arg Ile Ile Gln Ser Gln  
     1                    5                    10                    15  
 Lys Arg Arg Arg Val Lys Thr Leu Pro Gly Asp Gly Lys Gly Asn Lys  
                     20                    25                    30  
 His Lys Lys His Arg Lys Arg Arg Lys Gly Glu Glu Ser Glu Gly Phe  
             35                    40                    45  
 Leu Asn Pro Glu Leu Leu Glu Thr Ser Arg Lys Ser Arg Glu Pro Thr  
     50                    55                    60  
 Xaa Val Glu Glu Asn Lys Thr Asp Ser Leu Phe Val Leu Pro Ser Arg  
     65                    70                    75                    80  
 Asp Asp Ala Thr Pro Val Arg Asp Glu Pro Met Asp Ala Glu Ser Xaa  
                     85                    90                    95  
 Thr Phe Lys Ser Val Ser Glu Lys Asp Xaa Arg Glu Arg Asp Lys Pro  
             100                    105                    110  
 Lys Ala Lys Gly Asp Lys Thr Lys Arg Lys Asn Asp Gly Ser Ala Val  
             115                    120                    125  
 Ser Lys Lys Glu Asn Ile Val Lys Pro Ala Lys Gly Pro Gln Glu Lys  
     130                    135                    140  
 Val Asp Gly Glu Arg Glu Arg Ser Pro Ser Ile  
     145                    150                    155

<210> 4485  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

## 4061

&lt;400&gt; 4485

```

Pro Pro Arg Arg Gly Leu Gly Gly Thr Ser Ser Arg Ser Pro Gly Pro
 1             5             10             15

Arg Phe Cys Gly Arg Val His Cys Arg Gly Gly Asp Gly Val Arg Ala
      20             25             30

Arg Arg Gln Leu Pro Pro Arg Ser Ser Gly Pro Thr Trp Gln Ser Ala
      35             40             45

Ala His Gly Ser Pro Ala Ser Glu Asp Pro Trp Leu Gln Pro Pro Ile
      50             55             60

Pro Thr Cys Arg Arg Thr Arg
 65             70

```

&lt;210&gt; 4486

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4486

```

Asp Ile Asp Leu Asp Met Arg Phe Phe Ser Phe Ile Leu Ser Cys Arg
 1             5             10             15

Arg Asn Xaa Ser Ser Ile Cys Thr Arg Xaa Lys Thr Thr Tyr Thr Asn
      20             25             30

Thr Ile Glu Gln Leu Ile Met Lys Thr Leu Pro Ala Phe Ile Lys Asn
      35             40             45

Val Ile Ile Phe Phe Cys
      50

```

&lt;210&gt; 4487

&lt;211&gt; 33

## 4062

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4487

Gln Cys Ser Glu Ile Cys Gly Ala Asn His Ser Phe Met Pro Ile Val  
 1 5 10 15

Leu Glu Leu Ile Pro Leu Lys Ile Phe Glu Ile Gly Pro Val Phe Thr  
 20 25 30

Leu

&lt;210&gt; 4488

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4488

Ala Val Pro Lys Asp Val Ser Ser Glu Glu Ala Gly Gln Val Glu Gly  
 1 5 10 15

Val Ser Thr Met Val Ile Asp Gly Glu Gly Asp Ala Ala Gln Val Glu  
 20 25 30

Arg Phe Val His Leu Pro Gly Val Gln Glu Trp Val Gly Gly Thr Thr  
 35 40 45

Gln Ser Ile Leu Tyr Leu Ala His Thr Cys Trp Tyr Trp Ser Trp Leu  
 50 55 60

Ala Phe Pro Cys Ala Thr Arg Arg Ser Cys Thr Val Leu Ser Ser Gln  
 65 70 75 80

Leu Thr Ser Ala Lys Met Ser Gly Phe Ser Ser Glu Leu Leu Cys Glu  
 85 90 95

Ala Thr Arg Met Glu Val Ile Ser Ala Ser Val Leu Ile Leu Glu Val  
 100 105 110

Glu Lys Trp Ser Glu Ser Ser Val Val Lys Trp Pro Tyr Thr Lys Val  
 115 120 125

Gly Asp Ile Gln Asn Arg Gly Glu Ile Gly Leu Ser Ala Pro Leu Gly  
 130 135 140

Gly Arg Glu Ala Val Gly Val Gly Gly Glu Met Ala Leu Cys Glu Cys  
 145 150 155 160

Gly Arg Pro Ala Asp Trp Arg Trp Asn Trp Pro Gln Cys Leu Ser Trp  
165 170 175

```
<210> 4489
<211> 134
<212> PRT
<213> Homo sapiens
```

<400> 4489  
Pro Val Pro Phe Pro Thr Phe Ala Leu Pro Val Val Gly Met Trp Glu  
1 5 10 15

Ala His Leu Ser Ser Cys Asp Phe Met Ser Gln Thr Lys Asp Glu Arg  
20 25 30

Leu Val Ser Ala Met Met Val Val Ser Glu Ala Phe Pro Cys Pro Val  
35 40 45

Trp Cys Leu Pro His Ile Val Pro Asp Thr Gly Phe Leu Asp Pro Leu  
50 55 60

Leu	Leu	Ser	Phe	Leu	Ser	Phe	Arg	Ser	Arg	Ser	Pro	Val	Leu	Tyr	Pro
65					70					75					80

Ala Pro Gln Lys Pro Gln Cys Phe Ser Ser Ala Gly Leu Gly His Lys  
85 90 95

Glu Ala Leu Gly Tyr Gly Glu Arg Leu Leu Leu Pro Arg Val Tyr Ser  
100 105 110

Gln Ala Arg Gly Leu Pro Ser Ser Ser Gln Thr Ser Leu Lys Gly Ser  
115 120 125

Pro Phe Gly Ala Gly Arg  
130

```
<210> 4490
<211> 58
<212> PRT
<213> Homo sapiens
```

<400> 4490  
Glu Phe Gly Thr Arg Gln Trp Cys Asp Leu Ser Ser Leu Gln Pro Pro  
1 5 10 15



## 4064

Arg Leu Gly Phe Met Gln Leu Ser Cys Leu Ser Leu Pro Ser Ser Trp  
                   20                  25                  30

Asp Tyr Arg His Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser  
                   35                  40                  45

Arg Asp Gly Val Ser Leu Cys Trp Ser Gly  
           50                  55

<210> 4491

<211> 25

<212> PRT

<213> Homo sapiens

<400> 4491

Arg Ala Pro Val Ile Pro Ala Thr Gln Glu Ala Glu Ala Gly Glu Trp  
       1                  5                  10                  15

Arg Glu Pro Gly Arg Arg Ser Leu Gln  
                   20                  25

<210> 4492

<211> 351

<212> PRT

<213> Homo sapiens

<400> 4492

Glu Pro Pro Pro Pro Ala Ile Arg His His Leu Pro Leu Leu Gln Leu  
       1                  5                  10                  15

Phe Ser Gln Asp Gln Pro Leu Ala Gln Pro Arg Ala Met Ala Tyr Val  
                   20                  25                  30

Pro Ala Pro Gly Tyr Gln Pro Thr Tyr Asn Pro Thr Leu Pro Tyr Tyr  
                   35                  40                  45

Gln Pro Ile Pro Gly Gly Leu Asn Val Gly Met Ser Val Tyr Ile Gln  
           50                  55                  60

Gly Val Val Ser Glu His Met Lys Arg Phe Phe Val Asn Phe Val Val  
       65                  70                  75                  80

Gly Gln Asp Pro Gly Ser Asp Val Ala Phe His Phe Asn Pro Arg Phe  
                   85                  90                  95

Asp Gly Trp Asp Lys Val Val Phe Asn Thr Leu Gln Gly Gly Lys Trp

## 4065

100							105					110				
Gly	Ser	Glu	Glu	Arg	Lys	Arg	Ser	Met	Pro	Phe	Lys	Lys	Gly	Ala	Ala	
		115				120						125				
Phe	Glu	Leu	Val	Phe	Ile	Val	Leu	Ala	Glu	His	Tyr	Lys	Val	Val	Val	
		130				135						140				
Asn	Gly	Asn	Pro	Phe	Tyr	Glu	Tyr	Gly	His	Arg	Leu	Pro	Leu	Gln	Met	
				150						155				160		
Val	Thr	His	Leu	Gln	Val	Asp	Gly	Asp	Leu	Gln	Leu	Gln	Ser	Ile	Asn	
				165				170						175		
Phe	Ile	Gly	Gly	Gln	Pro	Leu	Arg	Pro	Gln	Gly	Pro	Pro	Met	Met	Pro	
		180						185				190				
Pro	Tyr	Pro	Gly	Pro	Gly	His	Cys	His	Gln	Gln	Leu	Asn	Ser	Leu	Pro	
		195				200						205				
Thr	Met	Glu	Gly	Pro	Pro	Thr	Phe	Asn	Pro	Pro	Val	Pro	Tyr	Phe	Gly	
		210				215						220				
Arg	Leu	Gln	Gly	Gly	Leu	Thr	Ala	Arg	Arg	Thr	Ile	Ile	Ile	Lys	Gly	
				230						235				240		
Tyr	Val	Pro	Pro	Thr	Gly	Lys	Ser	Phe	Ala	Ile	Asn	Phe	Lys	Val	Gly	
				245				250						255		
Ser	Ser	Gly	Asp	Ile	Ala	Leu	His	Ile	Asn	Pro	Arg	Met	Gly	Asn	Gly	
		260						265				270				
Thr	Val	Val	Arg	Asn	Ser	Leu	Leu	Asn	Gly	Ser	Trp	Gly	Ser	Glu	Glu	
		275				280						285				
Lys	Lys	Ile	Thr	His	Asn	Pro	Phe	Gly	Pro	Gly	Gln	Phe	Phe	Asp	Leu	
		290				295						300				
Ser	Ile	Arg	Cys	Gly	Leu	Asp	Arg	Phe	Lys	Val	Tyr	Ala	Asn	Gly	Gln	
				310						315				320		
His	Leu	Phe	Asp	Phe	Ala	His	Arg	Leu	Ser	Ala	Phe	Gln	Arg	Val	Asp	
				325				330						335		
Thr	Leu	Glu	Ile	Gln	Gly	Asp	Val	Thr	Leu	Ser	Tyr	Val	Gln	Ile		
		340						345				350				

<210> 4493

<211> 83

## 4066

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4493

Val	Asn	Glu	Cys	Gln	Gly	Arg	Gln	Ala	Pro	Ala	Pro	Arg	Ala	Leu	Gly
1				5					10					15	

Val	Ala	Arg	Gly	Cys	Leu	Ala	Arg	Thr	Pro	Cys	Thr	Tyr	Phe	Pro	Gly
			20					25					30		

Ala	Gln	His	Gly	Asn	Lys	Ala	Pro	Xaa	Xaa	Ala	Leu	Gly	Pro	Cys	Glu
		35					40					45			

Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
	50					55					60				

Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Gly	Gly	Arg	Xaa	Lys
65						70					75				80

Arg Phe Pro

&lt;210&gt; 4494

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4494

Pro Gln Arg Ala Arg Ala Gly Ala Arg Xaa Pro Ser Met Gly Val Leu

4067

1					5						10					15
Leu	Thr	Gln	Arg	Thr	Leu	Leu	Ser	Leu	Val	Leu	Ala	Leu	Leu	Phe	Pro	
			20					25					30			
Ser	Met	Ala	Ser	Met	Ala	Ala	Ile	Gly	Ser	Cys	Ser	Lys	Glu	Tyr	Arg	
		35					40					45				
Val	Leu	Leu	Gly	Gln	Leu	Gln	Lys	Gln	Thr	Asp	Leu	Met	Gln	Asp	Thr	
	50					55					60					
Ser	Arg	Leu	Leu	Asp	Pro	Tyr	Val	Ser	Thr	Trp	Ala	Leu	Val	Ala	Ser	
65					70					75					80	
Glu	Ser	Gln	Arg	Thr	Met	Gly	Leu	Gly	Arg	Glu						
				85					90							

```
<210> 4495
<211> 36
<212> PRT
<213> Homo sapiens
```

```
<400> 4495
Ala Pro Val Val Ala Ala Thr Arg Glu Ala Glu Ala Gly Glu Ser Leu
 1             5             10             15
Glu Pro Val Gly Ala Glu Val Ala Val Ser Gln Asp Arg Ala Thr Ala
          20             25             30
Leu Gln Pro Gly
          35
```

```
<210> 4496
<211> 50
<212> PRT
<213> Homo sapiens
```

```
<400> 4496
Leu Pro His Pro Lys Phe Tyr Gly Arg Leu Met Phe Cys Tyr Gly Asp
 1             5             10             15
Tyr His Pro Ser Thr Trp Lys His Gln Asn Gly Leu Val Gln Leu Gly
      20             25             30
Ser Ser Ala Arg Ser Arg Cys Leu Leu Phe Glu Ile Val Trp Lys Asp
      35             40             45
```

## 4068

Tyr Cys  
50

<210> 4497  
<211> 75  
<212> PRT  
<213> Homo sapiens

<400> 4497  
Gln Val Asn Glu Val His Ile Trp Lys Ser Leu Asn Ile Phe Arg Ser  
1 5 10 15  
Trp Asn Ser Met Ala Thr Leu Val Val Tyr Ala Phe His Cys Cys Gly  
20 25 30  
Arg Gly Phe Gly Ser Lys Cys His Gln Gln Trp Ile Gln Lys Thr Trp  
35 40 45  
Ile Trp Asn Lys Gly Lys Ile Tyr Leu Met Gly Leu Asn Cys Ser Ala  
50 55 60  
Arg Ser Ile Trp Tyr Glu Met Lys Trp Leu Ser  
65 70 75

<210> 4498  
<211> 444  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4498  
Asn Glu Gln Asp Asn Cys Val Leu Ile His Asp Val Asp Gln Arg Asn  
1 5 10 15  
Ser Asp Lys Asp Ile Phe Gly Asp Ala Cys Asp Asn Cys Leu Ser Val  
20 25 30  
Leu Xaa Asn Asp Gln Lys Asp Thr Asp Gly Asp Gly Arg Gly Asp Ala  
35 40 45  
Cys Asp Asp Asp Met Asp Gly Asp Gly Ile Lys Asn Ile Leu Asp Asn  
50 55 60

## 4069

Cys Pro Lys Phe Pro Asn Arg Asp Gln Arg Asp Lys Asp Gly Asp Gly  
 65 70 75 80  
 Val Gly Asp Ala Cys Asp Ser Cys Pro Asp Val Ser Asn Pro Asn Gln  
 85 90 95  
 Ser Asp Val Asp Asn Asp Leu Val Gly Asp Ser Cys Asp Thr Asn Gln  
 100 105 110  
 Asp Ser Asp Gly Asp Gly His Gln Asp Ser Thr Asp Asn Cys Pro Thr  
 115 120 125  
 Val Ile Asn Ser Ala Gln Leu Asp Thr Asp Lys Asp Gly Ile Gly Asp  
 130 135 140  
 Glu Cys Asp Asp Asp Asp Asp Asn Asp Gly Ile Pro Asp Leu Val Pro  
 145 150 155 160  
 Pro Gly Pro Asp Asn Cys Arg Leu Val Pro Asn Pro Ala Gln Glu Asp  
 165 170 175  
 Ser Asn Ser Asp Gly Val Gly Asp Ile Cys Glu Ser Asp Phe Asp Gln  
 180 185 190  
 Asp Gln Val Ile Asp Arg Ile Asp Val Cys Pro Glu Asn Ala Glu Val  
 195 200 205  
 Thr Leu Thr Asp Phe Arg Ala Tyr Gln Thr Val Val Leu Asp Pro Glu  
 210 215 220  
 Gly Asp Ala Gln Ile Asp Pro Asn Trp Val Val Leu Asn Gln Gly Met  
 225 230 235 240  
 Glu Ile Val Gln Thr Met Asn Ser Asp Pro Gly Leu Ala Val Gly Tyr  
 245 250 255  
 Thr Ala Phe Asn Gly Val Asp Phe Glu Gly Thr Phe His Val Asn Thr  
 260 265 270  
 Gln Thr Asp Asp Asp Tyr Ala Gly Phe Ile Phe Gly Tyr Gln Asp Ser  
 275 280 285  
 Ser Ser Phe Tyr Val Val Met Trp Lys Gln Thr Glu Gln Thr Tyr Trp  
 290 295 300  
 Gln Ala Thr Pro Phe Arg Ala Val Ala Glu Pro Gly Ile Gln Leu Lys  
 305 310 315 320  
 Ala Val Lys Ser Lys Thr Gly Pro Gly Glu His Leu Arg Asn Ser Leu  
 325 330 335

## 4070

Trp His Thr Gly Asp Thr Ser Asp Gln Val Arg Leu Leu Trp Lys Asp  
 340 345 350

Ser Arg Asn Val Gly Trp Lys Asp Lys Val Ser Tyr Arg Trp Phe Leu  
 355 360 365

Gln His Arg Pro Gln Val Gly Tyr Ile Arg Val Arg Phe Tyr Glu Gly  
 370 375 380

Ser Glu Leu Val Ala Asp Ser Gly Val Thr Ile Asp Thr Thr Met Arg  
 385 390 395 400

Gly Gly Arg Leu Gly Val Phe Cys Phe Ser Gln Glu Asn Ile Ile Trp  
 405 410 415

Ser Asn Leu Lys Tyr Arg Cys Asn Asp Thr Ile Pro Glu Asp Phe Gln  
 420 425 430

Glu Phe Gln Thr Gln Asn Phe Asp Arg Phe Asp Asn  
 435 440

<210> 4499

<211> 358

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (234)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4499

Leu Pro Gln Val Met Ala Glu Phe Arg Asn Asn Pro Gly Glu Val Glu  
 1 5 10 15

Gly Arg Lys Ala Lys Ser Met Lys Gly Gln Thr Thr Gly Lys Asn Gln  
 20 25 30

Asp Asn Pro Val Ile Asp Glu Ile Asp Phe Leu Glu Ala Phe Lys Asn  
 35 40 45

Ile Gln Pro Ser Ser Phe Arg Ser Val Ile Gly Leu Met Asp Ile Lys  
 50 55 60

Pro Val Asp Trp Glu Glu Ile Gly Gly Leu Glu Asp Val Lys Leu Lys  
 65 70 75 80

Leu Lys Gln Ser Ile Glu Trp Pro Leu Lys Phe Pro Trp Glu Phe Val  
 85 90 95

## 4071

Arg Met Gly Leu Thr Gln Pro Lys Gly Val Leu Leu Tyr Gly Pro Pro  
 100 105 110

Gly Cys Ala Lys Thr Thr Leu Val Arg Ala Leu Ala Thr Ser Cys His  
 115 120 125

Cys Ser Phe Val Ser Val Ser Gly Ala Asp Leu Phe Ser Pro Phe Val  
 130 135 140

Gly Asp Ser Glu Lys Val Leu Ser Gln Ile Phe Arg Gln Ala Arg Ala  
 145 150 155 160

Ser Thr Pro Ala Ile Leu Phe Leu Asp Glu Ile Asp Ser Ile Leu Gly  
 165 170 175

Ala Arg Ser Ala Ser Lys Thr Gly Cys Asp Val Gln Glu Arg Val Leu  
 180 185 190

Ser Val Leu Leu Asn Glu Leu Asp Gly Val Gly Leu Lys Thr Ile Glu  
 195 200 205

Arg Arg Gly Ser Lys Ser Ser Gln Gln Glu Phe Gln Glu Val Phe Asn  
 210 215 220

Arg Ser Val Met Ile Ile Ala Ala Thr Xaa Arg Pro Asp Val Leu Asp  
 225 230 235 240

Thr Ala Leu Leu Arg Pro Gly Arg Leu Asp Lys Ile Ile Tyr Ile Pro  
 245 250 255

Pro Pro Asp His Lys Gly Arg Leu Ser Ile Leu Lys Val Cys Thr Lys  
 260 265 270

Thr Met Pro Ile Gly Pro Asp Val Ser Leu Glu Asn Leu Ala Ala Glu  
 275 280 285

Thr Cys Phe Phe Ser Gly Ala Asp Leu Arg Asn Leu Cys Thr Glu Ala  
 290 295 300

Ala Leu Leu Ala Leu Gln Glu Asn Gly Leu Asp Ala Thr Thr Val Lys  
 305 310 315 320

Gln Glu His Phe Leu Lys Ser Leu Lys Thr Val Lys Pro Ser Leu Ser  
 325 330 335

Cys Lys Asp Leu Ala Leu Tyr Glu Asn Leu Phe Lys Lys Glu Gly Phe  
 340 345 350

Ser Asn Val Glu Gly Ile  
 355



4072

&lt;210&gt; 4500

&lt;211&gt; 446

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4500

```

Asn Ser Ala Gln Val Gly Arg Gly Asp Ala Val Leu Lys Thr Trp Ala
 1             5             10             15

Pro Ala Gln Cys Leu Cys Ser Arg Met Gly Pro Ala Trp Leu Trp Leu
      20             25             30

Leu Gly Thr Gly Ile Leu Ala Ser Val His Cys Gln Pro Leu Leu Ala
      35             40             45

His Gly Asp Lys Ser Leu Gln Gly Pro Gln Pro Pro Arg His Gln Leu
      50             55             60

Ser Glu Pro Ala Pro Ala Tyr His Arg Ile Thr Pro Thr Ile Thr Asn
      65             70             75             80

Phe Ala Leu Arg Leu Tyr Lys Glu Leu Ala Ala Asp Ala Pro Gly Asn
      85             90             95

Ile Phe Phe Ser Pro Val Ser Ile Ser Thr Thr Leu Ala Leu Leu Ser
      100            105            110

Leu Gly Ala Gln Ala Asn Thr Ser Ala Leu Ile Leu Glu Gly Leu Gly
      115            120            125

Phe Asn Leu Thr Glu Thr Pro Glu Ala Asp Ile His Gln Gly Phe Arg
      130            135            140

Ser Leu Leu His Thr Leu Ala Leu Pro Ser Pro Lys Leu Glu Leu Lys
      145            150            155            160

Val Gly Asn Ser Leu Phe Leu Asp Lys Arg Leu Lys Pro Arg Gln His
      165            170            175

Tyr Leu Asp Ser Ile Lys Glu Leu Tyr Gly Ala Phe Ala Phe Ser Ala
      180            185            190

Asn Phe Thr Asp Ser Val Thr Thr Gly Arg Gln Ile Asn Asp Tyr Leu
      195            200            205

Arg Arg Gln Thr Tyr Gly Gln Val Val Asp Cys Leu Pro Glu Phe Ser
      210            215            220

```

## 4073

Gln Asp Thr Phe Met Val Leu Ala Asn Tyr Ile Phe Phe Lys Ala Lys  
 225 230 235 240

Trp Lys His Pro Phe Ser Arg Tyr Gln Thr Gln Lys Gln Glu Ser Phe  
 245 250 255

Phe Val Asp Glu Arg Thr Ser Leu Gln Val Pro Met Met His Gln Lys  
 260 265 270

Glu Met His Arg Phe Leu Tyr Asp Gln Asp Leu Ala Cys Thr Val Leu  
 275 280 285

Gln Ile Glu Tyr Arg Gly Asn Ala Leu Ala Leu Leu Val Leu Pro Asp  
 290 295 300

Pro Gly Lys Met Lys Gln Val Glu Ala Ala Leu Gln Pro Gln Thr Leu  
 305 310 315 320

Arg Lys Trp Gly Gln Leu Leu Leu Pro Ser Leu Leu Asp Leu His Leu  
 325 330 335

Pro Arg Phe Ser Ile Ser Gly Thr Tyr Asn Leu Glu Asp Ile Leu Pro  
 340 345 350

Gln Ile Gly Leu Thr Asn Ile Leu Asn Leu Glu Ala Asp Phe Ser Gly  
 355 360 365

Val Thr Gly Gln Leu Asn Lys Thr Ile Ser Lys Val Ser His Lys Ala  
 370 375 380

Met Val Asp Met Ser Glu Lys Gly Thr Glu Ala Gly Ala Ala Ser Gly  
 385 390 395 400

Leu Leu Ser Gln Pro Pro Ser Leu Asn Thr Met Ser Asp Pro His Ala  
 405 410 415

His Phe Asn Arg Pro Phe Leu Leu Leu Leu Trp Glu Val Thr Thr Gln  
 420 425 430

Ser Leu Leu Phe Leu Gly Lys Val Val Asn Pro Val Ala Gly  
 435 440 445

<210> 4501

<211> 180

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

## 4074

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4501

Lys	Ala	Arg	Pro	Leu	Xaa	Leu	Thr	Lys	Gly	Asn	Lys	Xaa	Trp	Xaa	Ser
1				5					10					15	

Thr	Ala	Val	Ala	Ala	Ala	Leu	Gln	Leu	Val	Asp	Pro	Pro	Gly	Cys	Arg
			20					25					30		

Asn	Ser	Ala	Arg	Glu	Glu	His	Trp	Pro	Ser	Gln	Leu	Leu	Leu	Arg	Glu
		35					40					45			

Ser	Leu	Glu	Asp	Met	Met	Leu	His	Ser	Ala	Leu	Gly	Leu	Cys	Leu	Leu
	50					55					60				

Leu	Val	Thr	Val	Ser	Ser	Asn	Leu	Ala	Ile	Ala	Ile	Lys	Lys	Glu	Lys
65					70					75					80

Arg	Pro	Pro	Gln	Thr	Leu	Ser	Arg	Gly	Trp	Gly	Asp	Asp	Ile	Thr	Trp
				85					90					95	

Val	Gln	Thr	Tyr	Glu	Glu	Gly	Leu	Phe	Tyr	Ala	Gln	Lys	Ser	Lys	Lys
			100					105					110		

Pro	Leu	Met	Val	Ile	His	His	Leu	Glu	Asp	Cys	Gln	Tyr	Ser	Gln	Ala
		115					120					125			

Leu	Lys	Lys	Val	Phe	Ala	Gln	Asn	Glu	Glu	Ile	Gln	Glu	Met	Ala	Gln
130						135					140				

Asn	Lys	Phe	Ile	Met	Leu	Asn	Leu	Met	His	Glu	Thr	Thr	Asp	Lys	Asn
145					150					155					160

Leu	Ser	Pro	Asp	Gly	Gln	Tyr	Val	Pro	Arg	Asn	His	Val	Cys	Arg	Pro
				165					170					175	

Phe	Phe	Asn	Ser
			180

## 4075

&lt;210&gt; 4502

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4502

Gly Gly Thr Ser Ser Leu Ser Thr Met Asn Gln Thr Ala Ile Leu Asn  
 1 5 10 15

Leu Leu Pro Tyr Leu Ser Asp Ser Lys Trp His Ser Arg  
 20 25

&lt;210&gt; 4503

&lt;211&gt; 238

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4503

Gln Asp Leu Lys Pro Val Leu Asp Arg Glu Tyr Leu Ala Ile Tyr Leu  
 1 5 10 15

Lys Met Val Phe Phe Thr Cys Asn Ala Cys Gly Glu Ser Val Lys Lys  
 20 25 30

Ile Gln Val Glu Lys His Val Ser Val Cys Arg Asn Cys Glu Cys Leu  
 35 40 45

Ser Cys Ile Asp Cys Gly Lys Asp Phe Trp Gly Asp Asp Tyr Lys Asn  
 50 55 60

His Val Lys Cys Ile Ser Glu Asp Gln Lys Tyr Gly Gly Lys Gly Tyr  
 65 70 75 80

Glu Gly Lys Thr His Lys Gly Asp Ile Lys Gln Gln Ala Trp Ile Gln  
 85 90 95

Lys Ile Ser Glu Leu Ile Lys Arg Pro Asn Val Ser Pro Lys Val Arg  
 100 105 110

Glu Leu Leu Glu Gln Ile Ser Ala Phe Asp Asn Val Pro Arg Lys Lys  
 115 120 125

Ala Lys Phe Gln Asn Trp Met Lys Asn Ser Leu Lys Val His Asn Glu  
 130 135 140

Ser Ile Leu Asp Gln Val Trp Asn Ile Phe Ser Glu Ala Ser Asn Ser  
 145 150 155 160

## 4076

Glu Pro Val Asn Lys Glu Gln Asp Gln Arg Pro Leu His Pro Val Ala  
 165 170 175

Asn Pro His Ala Glu Ile Ser Thr Lys Val Pro Ala Ser Lys Val Lys  
 180 185 190

Asp Ala Val Glu Gln Gln Gly Glu Val Lys Lys Asn Lys Arg Glu Arg  
 195 200 205

Lys Glu Glu Arg Gln Lys Lys Arg Lys Arg Glu Lys Lys Glu Leu Lys  
 210 215 220

Val Arg Lys Pro Pro Gly Lys Thr Pro Arg Asp Ser Glu Ala  
 225 230 235

<210> 4504

<211> 341

<212> PRT

<213> Homo sapiens

<400> 4504

Thr His Ala Ser Ala His Ala Ser Ala His Ala Ser Ala His Ala Ser  
 1 5 10 15

Gly Trp His Val Gly Gln Ala Gln Gln Gly Pro Val Ser Ala Leu Ser  
 20 25 30

Arg Ala Leu Pro Ala Pro Ala Arg Thr Met Arg Ala Leu Glu Gly Pro  
 35 40 45

Gly Leu Ser Leu Leu Cys Leu Val Leu Ala Leu Pro Ala Leu Leu Pro  
 50 55 60

Val Pro Ala Val Arg Gly Val Ala Glu Thr Pro Thr Tyr Pro Trp Arg  
 65 70 75 80

Asp Ala Glu Thr Gly Glu Arg Leu Val Cys Ala Gln Cys Pro Pro Gly  
 85 90 95

Thr Phe Val Gln Arg Pro Cys Arg Arg Asp Ser Pro Thr Thr Cys Gly  
 100 105 110

Pro Cys Pro Pro Arg His Tyr Thr Gln Phe Trp Asn Tyr Leu Glu Arg  
 115 120 125

Cys Arg Tyr Cys Asn Val Leu Cys Gly Glu Arg Glu Glu Glu Ala Arg  
 130 135 140

Ala Cys His Ala Thr His Asn Arg Ala Cys Arg Cys Arg Thr Gly Phe

## 4077

145		150		155		160									
Phe	Ala	His	Ala	Gly	Phe	Cys	Leu	Glu	His	Ala	Ser	Cys	Pro	Pro	Gly
				165					170					175	
Ala	Gly	Val	Ile	Ala	Pro	Gly	Thr	Pro	Ser	Gln	Asn	Thr	Gln	Cys	Gln
			180					185					190		
Pro	Cys	Pro	Pro	Gly	Thr	Phe	Ser	Ala	Ser	Ser	Ser	Ser	Ser	Glu	Gln
		195					200					205			
Cys	Gln	Pro	His	Arg	Asn	Cys	Thr	Ala	Leu	Gly	Leu	Ala	Leu	Asn	Val
	210					215					220				
Pro	Gly	Ser	Ser	Ser	His	Asp	Thr	Leu	Cys	Thr	Ser	Cys	Thr	Gly	Phe
225					230					235					240
Pro	Leu	Ser	Thr	Arg	Val	Pro	Gly	Ala	Glu	Glu	Cys	Glu	Arg	Ala	Val
				245					250					255	
Ile	Asp	Phe	Val	Ala	Phe	Gln	Asp	Ile	Ser	Ile	Lys	Arg	Leu	Gln	Arg
		260						265					270		
Leu	Leu	Gln	Ala	Leu	Glu	Ala	Pro	Glu	Gly	Trp	Gly	Pro	Thr	Pro	Arg
		275					280					285			
Ala	Gly	Arg	Ala	Ala	Leu	Gln	Leu	Lys	Leu	Arg	Arg	Arg	Leu	Thr	Glu
	290					295					300				
Leu	Leu	Gly	Ala	Gln	Asp	Gly	Ala	Leu	Leu	Val	Arg	Leu	Leu	Gln	Ala
305					310					315				320	
Leu	Arg	Val	Ala	Arg	Met	Pro	Gly	Leu	Glu	Arg	Ser	Val	Arg	Glu	Arg
				325					330					335	
Phe	Leu	Pro	Val	His											
			340												

&lt;210&gt; 4505

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

## 4078

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4505

Lys Gly Gly Gln Gly Ser Val Gly Gly Glu Arg Gly Cys Leu Cys Ile  
 1 5 10 15

Lys Thr Cys Phe Pro Ala Val Trp Arg Phe Leu Thr Glu Leu Lys Ile  
 20 25 30

Glu Leu Pro Phe Ile Pro Ala Ile Pro Leu Leu Gly Ile Tyr Ser Lys  
 35 40 45

Glu Asn Lys Leu Phe Tyr Gln Lys Asp Thr Cys Thr Pro Met Xaa Ile  
 50 55 60

Ala Ala Leu Phe Thr Ile Ala Lys Thr Trp Ser Lys Pro Arg Cys Pro  
 65 70 75 80

Ser Xaa Val Asn Xaa Ile Lys Lys Met  
 85

&lt;210&gt; 4506

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4506

Ile Ser Thr Ser Ile His Thr Tyr Val Leu Val Phe His Tyr Cys Asn  
 1 5 10 15

Leu Lys Glu Arg Leu Cys Ile Pro Phe Phe Asn Ser Val Leu Val Phe  
 20 25 30

Val Leu Phe Lys Lys Gln Asn Ser Ala Leu Phe Ser Cys Ile Ile Leu  
 35 40 45

Glu Asp Thr Leu Leu Cys Thr Ile Pro Ser Ala Leu Glu His Cys Leu  
 50 55 60

Ala Phe Leu Ser Ile Tyr Lys Cys Ile Tyr Val  
 65 70 75

## 4079

&lt;210&gt; 4507

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4507

Val Thr Ala Gly Val Gln Thr Lys Thr Cys Thr Pro Met Phe Ile Ala  
1 5 10 15

Ala Leu Phe Thr Ala Ala Lys Arg Trp Lys  
20 25

&lt;210&gt; 4508

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4508

Lys Gln Glu Thr Leu Ser Asp Leu Gly Ser Ser Tyr Ala Lys Gln Leu  
1 5 10 15

Gly Phe Arg Asp Ser Trp Val Phe Ile Gly Ala Lys Asp Leu Arg Gly  
20 25 30

Lys Ser Pro Phe Glu Gln Phe Leu Lys Asn Ser Pro Asp Thr Asn Lys  
35 40 45

Tyr Glu Gly Trp Pro Glu Leu Leu Glu Met Glu Gly Cys Met Pro Pro  
50 55 60

Lys Pro Phe  
65

&lt;210&gt; 4509

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4509

Ala Xaa Ala Pro Pro Gly Arg Ser Met Gly Arg Phe Arg Gly Gly Leu



## 4080

1	5	10	15
Arg Cys Ile Lys Tyr Leu Leu Leu Gly Phe Asn Leu Leu Phe Trp Leu	20	25	30
Ala Gly Ser Ala Val Ile Ala Phe Gly Leu Trp Phe Arg Phe Gly Gly	35	40	45
Ala Ile Lys Glu Leu Ser Ser Glu Asp Lys Ser Pro Glu Tyr Phe Tyr	50	55	60
Val Gly Leu Tyr Val Leu Val Gly Ala Gly Ala Leu Met Met Ala Val	65	70	75
Gly Phe Phe Gly Cys Cys Gly Ala Met Arg Glu Ser Gln Cys Val Leu	85	90	95
Gly Ser Phe Phe Thr Cys Leu Leu Val Ile Phe Ala Ala Glu Val Thr	100	105	110
Thr Gly Val Phe Ala Phe Ile Gly Lys Gly Val Ala Ile Arg His Val	115	120	125
Gln Thr Met Tyr Glu Glu Ala Tyr Asn Asp Tyr Leu Lys Asp Arg Gly	130	135	140
Lys Gly Asn Gly Thr Leu Ile Thr Phe His Ser Thr Phe Gln Cys Cys	145	150	155
Gly Lys Glu Ser Ser Glu Gln Val Gln Pro Thr Cys Pro Lys Glu Leu	165	170	175
Leu Gly His Lys Asn Cys Ile Asp Glu Ile Glu Thr Ile Ile Ser Val	180	185	190
Lys Leu Gln Leu Ile Gly Ile Val Gly Ile Gly Ile Ala Gly Leu Thr	195	200	205
Ile Phe Gly Met Ile Phe Ser Met Val Leu Cys Cys Ala Ile Arg Asn	210	215	220
Ser Arg Asp Val Ile	225		

&lt;210&gt; 4510

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4081

&lt;400&gt; 4510

Ile Glu Cys Val Asn Thr Val Leu Val Asn Phe Ile Thr Phe Leu Leu  
1 5 10 15

Pro Tyr Ser Leu Asn Phe Ser Val Phe Val Val Pro Lys Gln Leu Leu  
20 25 30

Asn Leu Glu Gln Ile Asn Leu Thr Pro Ala Lys Lys Arg Leu Leu Leu  
35 40 45

Ala Tyr Gln Leu Ser Leu Asn Ser Asn Ala His Val Thr Phe Ile Thr  
50 55 60

Ser Lys Asn Ile Ser Leu Met Ile His Leu  
65 70

&lt;210&gt; 4511

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (29)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4511

Tyr Ile Gly Phe Val Ile Leu Val Phe Phe Ala Ser Ser Tyr Val Lys  
1 5 10 15

Glu Ile Asp Asn Lys Ile Leu Asn Asn Lys Lys Lys Xaa Lys Xaa Ser  
20 25 30

Ser Lys Gly Xaa Val Ala Xaa Ala Ile

## 4082

35

40

&lt;210&gt; 4512

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4512

Glu Ile Arg Val Ser Cys Thr Ala Gly Ala Gly Phe Pro Ala Ala Gln  
 1 5 10 15

Ala Arg Val Arg Cys Leu Cys His Leu Ile Leu Met Ser Gly Glu Ile  
 20 25 30

Ala Met Cys Glu Pro Glu Phe Gly Asn Asp Lys Ala Arg Glu Pro Ser  
 35 40 45

Val Gly Gly Arg Trp Arg Val Ser Trp Tyr Glu Arg Phe Val Gln Pro  
 50 55 60

Cys Leu Val Glu Leu Leu Gly Ser Ala Leu Phe Ile Phe Ile Gly Cys  
 65 70 75 80

Leu Ser Val Ile Glu Asn Gly Thr Asp Thr Gly Leu Leu Gln Pro Ala  
 85 90 95

Leu Ala His Gly Leu Ala Leu Gly Leu Val Ile Ala Thr Leu Gly Asn  
 100 105 110

Ile Ser Gly Gly His Phe Asn Pro Ala Val Ser Leu Ala Ala Met Leu  
 115 120 125

Ile Gly Gly Leu Asn Leu Val Met Leu Leu Pro Tyr Trp Val Ser Gln  
 130 135 140

Leu Leu Gly Gly Met Leu Gly Ala Ala Leu Ala Lys Ala Val Ser Pro  
 145 150 155 160

Glu Glu Arg Phe Trp Asn Ala Ser Gly Ala Ala Phe Val Thr Val Gln  
 165 170 175

Glu Gln Gly Gln Val Ala Gly Ala Leu Val Ala Glu Ile Ile Leu Thr  
 180 185 190

Thr Leu Leu Ala Leu Ala Val Cys Met Gly Ala Ile Asn Glu Lys Thr  
 195 200 205

Lys Gly Pro Leu Ala Pro Phe Ser Ile Gly Phe Ala Val Thr Val Asp  
 210 215 220

## 4083

Ile Leu Ala Gly Gly Pro Val Ser Gly Gly Cys Met Asn Pro Ala Arg  
 225 230 235 240

Ala Phe Gly Pro Ala Val Val Ala Asn His Trp Asn Phe His Trp Ile  
 245 250 255

Tyr Trp Leu Gly Pro Leu Leu Ala Gly Leu Leu Val Gly Leu Leu Ile  
 260 265 270

Arg Cys Phe Ile Gly Asp Gly Lys Thr Arg Leu Ile Leu Lys Ala Gln  
 275 280 285

<210> 4513

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4513

Ser Pro Pro Tyr Ala Arg Lys Thr Cys Ser Arg Ser Val Ala Lys Leu  
 1 5 10 15

Asn Arg Ala Ile Arg Ile His Gln Thr Leu Met Glu Ser Ala Ser Leu  
 20 25 30

Thr Tyr Glu Gln Arg Leu Leu Ala Ile Gln Gln Leu Gly Arg Asp Tyr  
 35 40 45

Met Ala Ala Gly Leu Tyr Asp Arg Ala Glu Asp Met Phe Asn Gln Leu  
 50 55 60

Thr Asp Glu Thr Asp Phe Arg Ile Gly Ala Leu Gln Gln Leu Leu Gln  
 65 70 75 80

Ile Tyr Gln Ala Thr Ser Glu Trp Gln Lys Ala Ile Asp Val Ala Glu  
 85 90 95

Arg Leu Val Lys Leu Gly Lys Asp Lys Gln Arg Val Glu Ile Ala His  
 100 105 110

Phe Tyr Cys Glu Leu Ala Leu Gln His Met Ala Leu Leu Gln Thr Lys  
 115 120 125

4084

&lt;210&gt; 4514

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4514

Gly	Lys	Lys	Ile	Lys	Lys	Leu	Ala	Ser	Ala	Xaa	Arg	Gly	Gly	Ser	Leu
1				5					10					15	

Pro	Val	Ile	Pro	Ala	Leu	Ser	Ala	Ala	Glu	Ala	Ser	Gly	Ser	Leu	Glu
			20				25						30		

Val	Xaa	Ser	Ser	Lys	Thr	Ser	Leu	Gly	Gln	Thr
	35						40			

&lt;210&gt; 4515

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (216)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4515

Asn	Thr	Pro	Gly	Phe	Met	Tyr	Lys	Asn	Leu	Gln	Cys	Leu	Val	Ile	Asp
1				5				10						15	

Glu	Ala	Asp	Arg	Ile	Phe	Asp	Val	Gly	Phe	Glu	Glu	Glu	Leu	Lys	Gln
		20						25					30		

Ile	Ile	Lys	Leu	Leu	Pro	Thr	Arg	Arg	Gln	Thr	Met	Leu	Phe	Ser	Ala
		35					40					45			

Thr	Gln	Thr	Arg	Lys	Val	Glu	Asp	Leu	Ala	Arg	Ile	Ser	Leu	Lys	Lys
	50						55				60				

## 4085

Glu Pro Leu Tyr Val Gly Val Asp Asp Asp Lys Ala Asn Ala Thr Val  
 65 70 75 80  
 Asp Gly Leu Glu Gln Lys Asn Arg Lys Lys Lys Leu Met Val Phe Phe  
 85 90 95  
 Ser Ser Cys Met Ser Val Lys Tyr His Tyr Glu Leu Leu Asn Tyr Ile  
 100 105 110  
 Asp Leu Pro Val Leu Ala Ile His Gly Lys Gln Lys Gln Asn Lys Arg  
 115 120 125  
 Thr Thr Thr Phe Phe Gln Phe Cys Asn Ala Asp Ser Gly Thr Leu Leu  
 130 135 140  
 Cys Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Pro Glu Val Asp Trp  
 145 150 155 160  
 Ile Val Gln Tyr Asp Pro Pro Asp Asp Pro Lys Glu Tyr Ile His Arg  
 165 170 175  
 Val Gly Arg Thr Ala Arg Gly Leu Asn Gly Arg Gly His Ala Leu Leu  
 180 185 190  
 Ile Leu Arg Pro Glu Glu Leu Gly Phe Leu Arg Tyr Leu Lys Gln Ser  
 195 200 205  
 Lys Val Pro Leu Ser Glu Phe Xaa Leu Phe Leu Val  
 210 215 220

&lt;210&gt; 4516

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4516

Leu Glu Leu Phe Cys Asn Ile Thr Glu Phe Val Arg Ser Leu Ala Lys  
 1 5 10 15  
 Ile Phe Glu Gln Phe Ile Asn Val Glu Gln Met Phe Leu Phe Thr Ala  
 20 25 30  
 Leu Phe Val Thr Glu Gly Asp Lys Phe Ser Ser His Asp Tyr Trp Leu  
 35 40 45  
 Pro Cys Thr Ala Ile Phe Ile His Asn Ser Arg His Phe Pro Phe Leu  
 50 55 60

## 4086

Trp Lys Ser Cys Cys Tyr Leu Asn Tyr Lys Cys Asn Cys Val Val Asn  
 65 70 75 80

Glu Ser

<210> 4517

<211> 75

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4517

Lys Pro Gln Pro Leu Ala Tyr Ser Ser Phe Asn Thr Arg Asp Leu Trp  
 1 5 10 15

Leu Ile Trp Gly Arg Lys Thr Leu Lys Val Ile Ser Leu Gly Gln Arg  
 20 25 30

Pro Tyr Cys Thr Arg Gly Lys Lys Tyr Ile Leu His Leu Leu Leu Leu  
 35 40 45

Gln Leu Cys Leu Lys Phe Ile Cys Leu Val Ile Leu Ser Thr Xaa Thr  
 50 55 60

Asn Phe Leu Val Tyr Phe Lys His Leu Val Gly  
 65 70 75

<210> 4518

<211> 38

<212> PRT

<213> Homo sapiens

<400> 4518

Val Asp Pro Glu Met Lys Val Glu Arg Tyr Lys Arg Thr Phe Asp Gln  
 1 5 10 15

Asn Glu Glu Leu Gly Leu Asn Asp Met Lys Thr Glu Gly Tyr Glu Ala  
 20 25 30

Gly Leu Ala Pro Gln Arg  
 35

## 4087

&lt;210&gt; 4519

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4519

Ala	Arg	Ala	Asn	Pro	Ala	Met	Ala	Tyr	Ala	Asn	Glu	Val	Lys	Arg	Val
1				5					10					15	

Val	Ser	Ser	Ala	Gln	Glu	Lys	Gly	Arg	Lys	Ile	Ala	Ala	Phe	Phe	Ala
			20					25					30		

Glu	Ser	Leu	Pro	Ser	Val	Gly	Gly	Gln	Ile	Ile	Pro	Pro	Ala	Gly	Tyr
		35					40					45			

Phe	Ser	Gln	Val	Ala	Glu	His	Ile	Arg	Lys	Ala	Gly	Gly	Val	Phe	Val
	50					55					60				

Ala	Asp	Glu	Ile	Gln	Val	Gly	Phe	Gly	Arg	Val	Gly	Lys	His	Phe	Trp
65					70					75					80

Ala	Phe	Gln	Leu	Gln	Gly	Lys	Asp	Phe	Val	Pro	Asp	Ile	Val	Thr	Met
			85						90					95	

Gly	Lys	Ser	Ile	Gly	Asn	Gly	His	Pro	Val	Ala	Cys	Val	Ala	Ala	Thr
		100						105					110		

Gln	Pro	Val	Ala	Arg	Ala	Phe	Glu	Ala	Thr	Gly	Leu	Ser	Thr	Ser	Thr
		115					120					125			

Arg	Leu	Gly	Ala	Ala	Gln	Cys	Pro	Ala	Leu	Trp	Gly	Trp	Pro	Ser	
	130					135					140				

&lt;210&gt; 4520

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



## 4088

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4520

Val	Thr	His	Ser	Val	Met	Leu	Gly	Arg	Pro	Gln	Ala	Glu	Lys	His	Leu
1				5					10					15	

Leu	Gln	Leu	Thr	Leu	Phe	Leu	Ala	Ile	His	Ser	Phe	Gly	Leu	Lys	Ile
			20					25					30		

Leu	Gln	His	Leu	Gln	Glu	Ser	Phe	Thr	Asn	Xaa	Ser	Phe	Gly	Gly	Val
		35					40					45			

Val	Leu	Asn	Tyr	Gln	Leu	Thr	Arg	Met	Arg	Xaa	Leu	Ala	Leu	Gly	Ser
	50					55					60				

Gln	Pro	Ala	Asn	Met	Asp	Gly	Leu	Ser	Gln	Xaa	Leu	Lys
65					70					75		

&lt;210&gt; 4521

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4521

Arg	Gly	Val	Val	Asp	Ser	Glu	Asp	Leu	Pro	Leu	Asn	Ile	Ser	Arg	Glu
1				5					10					15	

Met	Leu	Gln	Gln	Ser	Lys	Ile	Leu	Lys	Val	Ile	Arg	Lys	Asn	Ile	Val
			20					25					30		

Lys	Lys	Cys	Leu	Glu	Leu	Phe	Ser	Glu	Leu	Ala	Glu	Asp	Lys	Glu	Asn
		35					40					45			

Tyr	Lys	Lys	Phe	Tyr	Glu	Ala	Phe	Ser	Lys	Asn	Leu	Lys	Leu	Gly	Ile
	50					55					60				

His	Glu	Asp	Ser	Thr	Asn	Arg	Arg	Arg	Leu	Ser	Glu	Leu	Leu	Arg	Tyr
65					70					75					80

His	Thr	Ser	Gln	Ser	Gly	Asp	Glu	Met	Thr	Ser	Leu	Ser	Glu	Tyr	Val
				85					90					95	

Ser	Arg	Met	Lys	Glu	Thr	Gln	Lys	Ser	Ile	Tyr	Tyr	Ile	Thr	Gly	Glu
			100					105						110	

## 4089

Ser Lys Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys  
 115 120 125  
 Arg Gly Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys  
 130 135 140  
 Val Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr  
 145 150 155 160  
 Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys Met  
 165 170 175  
 Glu Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Lys Glu  
 180 185 190  
 Ile Leu Asp Lys Lys Val Glu Lys Val Thr Ile Ser Asn Arg Leu Val  
 195 200 205  
 Ser Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala Asn  
 210 215 220  
 Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr Met  
 225 230 235 240  
 Gly Tyr Met Met Ala Lys Lys His Leu Glu Ile Asn Pro Asp His Pro  
 245 250 255  
 Ile Val Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp Lys  
 260 265 270  
 Ala Val Lys Asp Leu Val Val Leu Leu Phe Glu Thr Ala Leu Leu Ser  
 275 280 285  
 Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ser Asn Arg Ile Tyr  
 290 295 300  
 Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Glu Val Ala Ala  
 305 310 315 320  
 Glu Glu Pro Asn Ala Ala Val Pro Asp Glu Ile Pro Pro Leu Glu Gly  
 325 330 335  
 Asp Glu Asp Ala Ser Arg Met Glu Glu Val Asp  
 340 345

&lt;210&gt; 4522

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4090

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4522

Leu	Phe	Leu	Xaa	Gly	Gly	Lys	Asp	Pro	Leu	Val	Pro	Xaa	Xaa	Lys	Gln
1				5					10					15	

Leu	Gly	Lys	Asp	Leu	Ala	Leu	Tyr	Ile	Tyr	Trp	Met	Val	Leu	Met	Ala
			20					25					30		

Lys	Leu	Leu	Asn	Ser	Leu	Ile	Ser	His	Val	Ser	Ala	Ser	Arg	Ile	Ser
			35					40					45		

Asp	Arg	Asn	Glu	Thr	His	Leu	Lys	Met	Arg	Leu	Thr	Trp	Arg	Phe	Phe
			50				55				60				

Phe	Pro	Asn	Leu	Ser	Tyr	Leu	Asn	Trp	Lys	Asn	Asn	Gln	Leu	Ile	Leu
			65				70				75				80

Cys

&lt;210&gt; 4523

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4523

Thr	Gln	Val	Met	Gly	Leu	Cys	Cys	Thr	Asp	Tyr	Phe	Val	Val	His	Val
1				5					10					15	

Leu	Ser	Leu	Val	Pro	Asn	Ser	Tyr	Phe	Phe	Cys	Ser	Ser	Pro	Ser	Ser
			20					25					30		

Tyr	Pro	Leu	Pro	Ser	Ser	Trp	Pro	Asn	Val	Tyr	Cys	Ser	Leu	Leu	Cys
			35					40				45			

## 4091

Asn Asn His Ser Asn Leu Cys Phe  
 50 55

<210> 4524

<211> 193

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (188)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (191)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (193)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4524

Gly Ala Gly Ala Ala Glu Pro Gly Pro Ala Ala Glu Leu Glu Ala Leu  
 1 5 10 15

Leu Ser Ser Lys Asp Asp Val Gly Lys Ser Val His Glu Leu Glu Arg  
 20 25 30

Ala Cys Arg Val Ala Glu Gln Ala Ala Asn Asp Leu Arg Ala Gln Val  
 35 40 45

Thr Glu Leu Glu Asp Glu Leu Thr Ala Ala Glu Asp Ala Lys Leu Arg  
 50 55 60

Leu Glu Val Thr Val Gln Ala Leu Lys Thr Gln His Glu Arg Asp Leu  
 65 70 75 80

Gln Gly Arg Asp Glu Ala Gly Glu Glu Arg Arg Arg Gln Leu Ala Lys  
 85 90 95

Gln Leu Arg Asp Ala Glu Val Glu Arg Asp Glu Glu Arg Lys Gln Arg  
 100 105 110

Thr Leu Ala Val Ala Ala Arg Lys Lys Leu Glu Gly Glu Leu Glu Glu  
 115 120 125

## 4092

Leu Lys Ala Gln Met Ala Ser Ala Gly Gln Gly Lys Glu Glu Ala Val  
130 135 140

Lys Gln Leu Arg Lys Met Gln Ala Gln Met Lys Glu Leu Trp Arg Glu  
145 150 155 160

Val Glu Glu Thr Arg Thr Phe Arg Glu Glu Ile Phe Ser Gln Asn Arg  
165 170 175

Glu Ser Glu Lys Arg Leu Lys Gly Leu Lys Leu Xaa Cys Cys Xaa Cys  
180 185 190

Xaa

<210> 4525  
<211> 218  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (96)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (105)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (180)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (190)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (194)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (207)  
<223> Xaa equals any of the naturally occurring L-amino acids

## 4093

&lt;400&gt; 4525

Ala Ser Ala Ser Ile Cys Ser Gly Ile Lys Tyr Ala Phe Gln Val Ile  
 1 5 10 15

Gly Glu Leu His Ser Gln Leu Asp Gly Ser Glu Val Leu Leu Leu Thr  
 20 25 30

Asp Gly Glu Asp Asn Thr Ala Ser Ser Cys Ile Asp Glu Val Lys Gln  
 35 40 45

Ser Gly Ala Ile Val His Phe Ile Ala Leu Gly Arg Ala Ala Asp Glu  
 50 55 60

Ala Val Ile Glu Met Ser Lys Ile Thr Gly Gly Ser His Phe Tyr Val  
 65 70 75 80

Ser Asp Glu Ala Gln Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala Xaa  
 85 90 95

Thr Ser Gly Asn Thr Asp Leu Ser Xaa Lys Ser Leu Gln Leu Glu Ser  
 100 105 110

Lys Gly Leu Thr Leu Asn Ser Asn Ala Trp Met Asn Asp Thr Val Ile  
 115 120 125

Ile Asp Ser Thr Val Gly Lys Asp Thr Phe Phe Leu Ile Thr Trp Asn  
 130 135 140

Ser Leu Pro Pro Ser Ile Ser Leu Trp Asp Pro Ser Gly Thr Ile Met  
 145 150 155 160

Glu Asn Phe Thr Val Asp Ala Thr Ser Lys Met Ala Tyr Leu Ser Ile  
 165 170 175

Pro Gly Thr Xaa Lys Val Gly Thr Trp Ala Tyr Asn Leu Xaa Ala Lys  
 180 185 190

Ala Xaa Pro Glu Thr Leu Thr Ile Thr Val Thr Ser Arg Ala Xaa Lys  
 195 200 205

Phe Phe Cys Ala Ser Asn His Ser Glu Cys  
 210 215

&lt;210&gt; 4526

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4094

&lt;400&gt; 4526

Gly Ala Phe Leu Met Ala Thr Ala Ala Trp Leu Thr Thr Val Phe Lys  
 1 5 10 15

Gln Pro Gly Cys Ala Pro Glu Leu His Trp Ala Ser Phe His Asn Tyr  
 20 25 30

Gly Ser Val Ser Ile Thr Leu Ile Ser Glu Cys Gly Arg His Leu Asn  
 35 40 45

Lys Asn His Glu Ser His Phe Thr Asn Gln Asp Thr Gln Asp Val Arg  
 50 55 60

Leu Ser Asp Leu Ser Tyr Gln Gly His Lys Ala Ser  
 65 70 75

&lt;210&gt; 4527

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4527

Cys Phe Ser Ser Ser Gly Phe Thr Cys His Asp His Gly Ala Thr Val  
 1 5 10 15

Leu Gln Tyr Ala Pro Lys Gln Gln Leu Leu Ile Ser Gly Gly Arg Lys  
 20 25 30

Arg His Val Cys Ile Phe Asp Ile Xaa Gln Arg Gln Leu Ile His Thr  
 35 40 45

Phe Gln Ala His Asp Ser Ala Ile Lys Ala Leu Ala Leu Asp Pro Tyr  
 50 55 60

Glu Glu Tyr Phe Thr Thr Gly Ser Ala Glu Gly Asn Ile Lys Val Trp  
 65 70 75 80

Arg Leu Thr Gly His Gly Leu Ile His Ser Phe Lys Ser Glu His Ala  
 85 90 95

Lys Gln Ser Ile Phe Arg Asn Ile Gly Ala Gly Val Met Gln Ile Asp  
 100 105 110

Ile Ile Gln Gly Asn Arg Leu Phe Ser Cys Gly Ala Asp Gly Thr Leu

## 4095

115                                      120                                      125  
 Lys Thr Arg Val Leu Pro Asn Ala Phe Asn Ile Pro Asn Arg Ile Leu  
     130                                      135                                      140  
  
 Asp Ile Leu  
 145  
  
 <210> 4528  
 <211> 423  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 4528  
 Pro Glu Asn Asn Gln Ile Glu Thr Met Glu Asp Leu Cys Val Ala Asn  
     1                                      5                                      10                                      15  
  
 Thr Leu Phe Ala Leu Asn Leu Phe Lys His Leu Ala Lys Ala Ser Pro  
                     20                                      25                                      30  
  
 Thr Gln Asn Leu Phe Leu Ser Pro Trp Ser Ile Ser Ser Thr Met Ala  
                     35                                      40                                      45  
  
 Met Val Tyr Met Gly Ser Arg Gly Ser Thr Glu Asp Gln Met Ala Lys  
                     50                                      55                                      60  
  
 Val Leu Gln Phe Asn Glu Val Gly Ala Asn Ala Val Thr Pro Met Thr  
     65                                      70                                      75                                      80  
  
 Pro Glu Asn Phe Thr Ser Cys Gly Phe Met Gln Gln Ile Gln Lys Gly  
                     85                                      90                                      95  
  
 Ser Tyr Pro Asp Ala Ile Leu Gln Ala Gln Ala Ala Asp Lys Ile His  
                     100                                      105                                      110  
  
 Ser Ser Phe Arg Ser Leu Ser Ser Ala Ile Asn Ala Ser Thr Gly Asn  
                     115                                      120                                      125  
  
 Tyr Leu Leu Glu Ser Val Asn Lys Leu Phe Gly Glu Lys Ser Ala Ser  
     130                                      135                                      140  
  
 Phe Arg Glu Glu Tyr Ile Arg Leu Cys Gln Lys Tyr Tyr Ser Ser Glu  
     145                                      150                                      155                                      160  
  
 Pro Gln Ala Val Asp Phe Leu Glu Cys Ala Glu Glu Ala Arg Lys Lys  
                     165                                      170                                      175  
  
 Ile Asn Ser Trp Val Lys Thr Gln Thr Lys Gly Lys Ile Pro Asn Leu  
                     180                                      185                                      190



## 4096

Leu Pro Glu Gly Ser Val Asp Gly Asp Thr Arg Met Val Leu Val Asn  
 195 200 205  
 Ala Val Tyr Phe Lys Gly Lys Trp Lys Thr Pro Phe Glu Lys Lys Leu  
 210 215 220  
 Asn Gly Leu Tyr Pro Phe Arg Val Asn Ser Ala Gln Arg Thr Pro Val  
 225 230 235 240  
 Gln Met Met Tyr Leu Arg Glu Lys Leu Asn Ile Gly Tyr Ile Glu Asp  
 245 250 255  
 Leu Lys Ala Gln Ile Leu Glu Leu Pro Tyr Ala Gly Asp Val Ser Met  
 260 265 270  
 Phe Leu Leu Leu Pro Asp Glu Ile Ala Asp Val Ser Thr Gly Leu Glu  
 275 280 285  
 Leu Leu Glu Ser Glu Ile Thr Tyr Asp Lys Leu Asn Lys Trp Thr Ser  
 290 295 300  
 Lys Asp Lys Met Ala Glu Asp Glu Val Glu Val Tyr Ile Pro Gln Phe  
 305 310 315 320  
 Lys Leu Glu Glu His Tyr Glu Leu Arg Ser Ile Leu Arg Ser Met Gly  
 325 330 335  
 Met Glu Asp Ala Phe Asn Lys Gly Arg Ala Asn Phe Ser Gly Met Ser  
 340 345 350  
 Glu Arg Asn Asp Leu Phe Leu Ser Glu Val Phe His Gln Ala Met Val  
 355 360 365  
 Asp Val Asn Glu Glu Gly Thr Glu Ala Ala Ala Gly Thr Gly Gly Val  
 370 375 380  
 Met Thr Gly Arg Thr Gly His Gly Gly Pro Gln Phe Val Ala Asp His  
 385 390 395 400  
 Pro Phe Leu Phe Leu Ile Met His Lys Ile Thr Asn Cys Ile Leu Phe  
 405 410 415  
 Phe Gly Arg Phe Ser Ser Pro  
 420

&lt;210&gt; 4529

&lt;211&gt; 86

&lt;212&gt; PRT

## 4097

&lt;213&gt; Homo sapiens

&lt;400&gt; 4529

Thr Met Glu Gly Cys Arg Pro Thr Ser Leu Ile Thr Ile Glu Ile His  
 1 5 10 15  
 Val Thr Ile Glu Pro Trp Lys Cys Ser Leu Ser Lys Leu Arg Cys Ala  
 20 25 30  
 Val Ser Ile Lys Tyr Ile Pro Asp Phe Lys Asp Val Pro Lys Asn Val  
 35 40 45  
 Asn Tyr Leu Asn Phe Tyr Ile Gly Glu Ile Asn Met Ser Trp Tyr Ser  
 50 55 60  
 Gly Leu Asn Lys Thr Ile Leu Ala Phe Leu Ser Leu Phe Phe Cys Lys  
 65 70 75 80  
 Lys Ile Lys Asn Cys Thr  
 85

&lt;210&gt; 4530

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4530

Gly Leu Arg Arg Leu Asp Ser Ala Ser Gly Thr Val Tyr Thr Ala Met  
 1 5 10 15  
 Asp Val Ala Thr Gly Gln Glu Val Ala Ile Lys Gln Met Asn Leu Gln  
 20 25 30  
 Gln Gln Pro Lys Lys Glu Leu Ile Ile Asn Glu Ile Leu Val Met Arg  
 35 40 45  
 Glu Asn Lys Asn Pro Asn Ile Val Asn Tyr Leu Asp Ser Tyr Leu Val  
 50 55 60  
 Gly Asp Glu Leu Trp Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu  
 65 70 75 80  
 Thr Asp Val Val Thr Glu Thr Cys Met Asp Glu Gly Gln Ile Ala Ala  
 85 90 95

## 4098

Val Cys Arg Glu Xaa Leu Gln Ala Leu Glu Phe Leu His Ser Asn Gln  
                   100                  105                  110  
 Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr Pro Tyr  
                   115                  120                  125  
 Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala Tyr Gly Pro Lys Val  
                   130                  135                  140  
 Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Ile Glu Gly Glu  
                   145                  150                  155                  160  
 Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu Ile Ala  
                   165                  170                  175  
 Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser Ala Ile  
                   180                  185                  190  
 Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu Lys Arg  
                   195                  200                  205  
 Gly Ser Ala Lys Glu Leu Leu Gln His Gln Phe Leu Lys Ile Ala Lys  
                   210                  215                  220  
 Pro Leu Ser Ser Leu Thr Pro Leu Ile Ala Ala Ala Lys Glu Ala Thr  
                   225                  230                  235                  240  
 Lys Asn Asn His

&lt;210&gt; 4531

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (188)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (192)

## 4099

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4531

His	Xaa	His	Ser	Phe	Ser	Ser	Gly	Tyr	Val	Glu	Met	Glu	Phe	Glu	Phe	1	5	10	15
Asp	Arg	Leu	Arg	Ala	Phe	Gln	Ala	Met	Gln	Val	His	Cys	Asn	Asn	Met	20	25	30	
His	Thr	Leu	Gly	Ala	Arg	Leu	Pro	Gly	Gly	Val	Glu	Cys	Arg	Phe	Arg	35	40	45	
Arg	Gly	Pro	Ala	Met	Ala	Trp	Glu	Gly	Glu	Pro	Met	Arg	His	Asn	Leu	50	55	60	
Gly	Gly	Asn	Leu	Gly	Asp	Pro	Arg	Ala	Arg	Ala	Val	Ser	Val	Pro	Leu	65	70	75	80
Gly	Gly	Arg	Val	Ala	Arg	Phe	Leu	Gln	Cys	Arg	Phe	Leu	Phe	Ala	Gly	85	90	95	
Pro	Trp	Leu	Leu	Phe	Ser	Glu	Ile	Ser	Phe	Ile	Ser	Asp	Val	Val	Asn	100	105	110	
Asn	Ser	Ser	Pro	Ala	Leu	Gly	Gly	Thr	Phe	Pro	Pro	Ala	Pro	Trp	Trp	115	120	125	
Pro	Pro	Gly	Pro	Pro	Pro	Thr	Asn	Phe	Ser	Ser	Leu	Glu	Leu	Glu	Pro	130	135	140	
Arg	Gly	Gln	Gln	Pro	Val	Ala	Lys	Ala	Glu	Gly	Ser	Pro	Thr	Ala	Ile	145	150	155	160
Leu	Ile	Gly	Cys	Leu	Val	Ala	Ile	Ile	Leu	Leu	Leu	Leu	Leu	Ile	Ile	165	170	175	
Ala	Leu	Met	Leu	Trp	Arg	Leu	His	Trp	Arg	Arg	Xaa	Leu	Ser	Lys	Xaa	180	185	190	
Glu	Arg	Arg	Val	Leu	Glu	Glu	Glu	Leu	Thr	Val	His	Leu	Ser	Val	Pro	195	200	205	
Gly	Asp	Thr	Ile	Leu	Ile	Asn	Asn	Arg	Pro	Gly	Pro	Arg	Glu	Pro	Pro	210	215	220	
Pro	Tyr	Gln	Glu	Pro	Arg	Pro	Arg	Gly	Asn	Pro	Pro	His	Ser	Ala	Pro	225	230	235	240
Cys	Val	Pro	Asn	Gly	Ser	Ala	Leu	Leu	Leu	Ser	Asn	Pro	Ala	Tyr	Arg	245	250	255	

## 4100

Leu Leu Leu Ala Thr Tyr Ala Arg Pro Pro Arg Gly Pro Gly Pro Pro  
 260 265 270

Thr Pro Ala Trp Ala Lys Pro Thr Asn Thr Gln Ala Tyr Ser Gly Asp  
 275 280 285

Tyr Met Glu Pro Glu Lys Pro Gly Ala Pro Leu Leu Pro Pro Pro Pro  
 290 295 300

Gln Asn Ser Val Pro His Tyr Ala Glu Ala Asp Ile Val Thr Leu Gln  
 305 310 315 320

Gly Val Thr Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu Pro Pro Gly  
 325 330 335

Ala Val Gly Asp Gly Pro Pro Arg Val Asp Phe Pro Arg Ser Arg Leu  
 340 345 350

Arg Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu  
 355 360 365

Cys Glu Val Asp Ser Pro Gln Asp Leu Val Ser Leu Asp Phe Pro Leu  
 370 375 380

Asn Val Arg Lys Gly His Pro Leu Leu Val Ala Val Lys Ile Leu Arg  
 385 390 395 400

Pro Asp Ala Thr Lys Asn Ala Arg Asn Asp Phe Leu Lys Glu Val Lys  
 405 410 415

Ile Met Ser Arg Leu Lys Asp Pro Asn Ile Ile Arg Leu Leu Gly Val  
 420 425 430

Cys Val Gln Asp Asp Pro Leu Cys Met Ile Thr Asp Tyr Met Glu Asn  
 435 440 445

Gly Asp Leu Asn Gln Phe Leu Ser Ala His Gln Leu Glu Asp Lys Ala  
 450 455 460

Ala Glu Gly Ala Pro Gly Asp Gly Gln Ala Ala Gln Gly Pro Thr Ile  
 465 470 475 480

Ser Tyr Pro Met Leu Leu His Val Ala Ala Gln Ile Ala Ser Gly Met  
 485 490 495

Arg Tyr Leu Ala Thr Leu Asn Phe Val His Arg Asp Leu Ala Thr Arg  
 500 505 510

Asn Cys Leu Val Gly Glu Asn Phe Thr Ile Lys Ile Ala Asp Phe Gly  
 515 520 525

## 4101

Met Ser Arg Asn Leu Tyr Ala Gly Asp Tyr Tyr Arg Val Gln Gly Arg  
 530 535 540

Ala Val Leu Pro Ile Arg Trp Met Ala Trp Glu Cys Ile Leu Met Gly  
 545 550 555 560

Lys Phe Thr Thr Ala Ser Asp Val Trp Ala Phe Gly Val Thr Leu Trp  
 565 570 575

Glu Val Leu Met Leu Cys Arg Ala Gln Pro Phe Gly Gln Leu Thr Asp  
 580 585 590

Glu Gln Val Ile Glu Asn Ala Gly Glu Phe Phe Arg Asp Gln Gly Arg  
 595 600 605

Gln Val Tyr Leu Ser Arg Pro Pro Ala Cys Pro Gln Ala Tyr Met Ser  
 610 615 620

&lt;210&gt; 4532

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (201)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4532

Xaa Gln Arg Trp Gly Gly Met Glu Ala Thr Ala Arg Lys Pro Gly Gln  
 1 5 10 15

Gln Trp Arg Ser Ser Val Ser Pro Ser Ser Gly Leu Glu Pro Ala Glu  
 20 25 30

Thr Ser Ala Gly Val Ser Ser Gln Gly Arg Trp Val Cys Gly Val Ser  
 35 40 45

Arg Gly Ala Val Pro Ala Arg Val Lys Arg Lys Leu Pro Arg Val Leu  
 50 55 60

## 4102

Cys Thr Pro Thr Arg Arg Arg Pro Ser Pro Arg Gly Pro Ser Gln Pro  
65 70 75 80

Asp Ala Arg Val Leu Cys Val Ser Asn Thr Arg Ser Val Pro Ala Pro  
85 90 95

Arg Arg Pro Arg Cys Pro Gln Leu Glu Glu Asp Ile Ala Ala Lys Glu  
100 105 110

Lys Leu Leu Arg Val Ser Glu Asp Glu Arg Asp Arg Val Leu Glu Glu  
115 120 125

Leu His Lys Ala Glu Asp Ser Leu Leu Ala Ala Glu Glu Ala Ala Pro  
130 135 140

Arg Leu Lys Pro Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val  
145 150 155 160

Glu Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln  
165 170 175

Lys Leu Glu Glu Ala Asp Lys Ala Ala Asp Glu Ser Glu Arg Gly Met  
180 185 190

Lys Val Ile Glu Ser Arg Ala Gln Xaa Gly  
195 200

<210> 4533

<211> 397

<212> PRT

<213> Homo sapiens

<400> 4533

Pro Thr Arg Pro Ser Ser Val Ser Arg Arg Asp Lys Ser Lys Gln Val  
1 5 10 15

Trp Glu Ala Val Leu Leu Pro Leu Ser Leu Leu Ser Met Met Asp Leu  
20 25 30

Arg Asn Thr Pro Ala Lys Ser Leu Asp Lys Phe Ile Glu Asp Tyr Leu  
35 40 45

Leu Pro Asp Thr Cys Phe Arg Met Gln Ile Asn His Ala Ile Asp Ile  
50 55 60

Ile Cys Gly Phe Leu Lys Glu Arg Cys Phe Arg Gly Ser Ser Tyr Pro  
65 70 75 80

Val Cys Val Ser Lys Val Val Lys Gly Gly Ser Ser Gly Lys Gly Thr

## 4103

	85		90		95	
Thr Leu Arg Gly Arg Ser Asp Ala Asp Leu Val Val Phe Leu Ser Pro	100		105		110	
Leu Thr Thr Phe Gln Asp Gln Leu Asn Arg Arg Gly Glu Phe Ile Gln	115		120		125	
Glu Ile Arg Arg Gln Leu Glu Ala Cys Gln Arg Glu Arg Ala Phe Ser	130		135		140	
Val Lys Phe Glu Val Gln Ala Pro Arg Trp Gly Asn Pro Arg Ala Leu	145		150		155	160
Ser Phe Val Leu Ser Ser Leu Gln Leu Gly Glu Gly Val Glu Phe Asp	165		170		175	
Val Leu Pro Ala Phe Asp Ala Leu Asp Phe Ala Arg Thr Gly Gln Leu	180		185		190	
Thr Gly Gly Tyr Lys Pro Asn Pro Gln Ile Tyr Val Lys Leu Ile Glu	195		200		205	
Glu Cys Thr Asp Leu Gln Lys Glu Gly Glu Phe Ser Thr Cys Phe Thr	210		215		220	
Glu Leu Gln Arg Asp Phe Leu Lys Gln Arg Pro Thr Lys Leu Lys Ser	225		230		235	240
Leu Ile Arg Leu Val Lys His Trp Tyr Gln Asn Cys Lys Lys Lys Leu	245		250		255	
Gly Lys Leu Pro Pro Gln Tyr Ala Leu Glu Leu Leu Thr Val Tyr Ala	260		265		270	
Trp Glu Arg Gly Ser Met Lys Thr His Phe Asn Thr Ala Gln Gly Phe	275		280		285	
Arg Thr Val Leu Glu Leu Val Ile Asn Tyr Gln Gln Leu Cys Ile Tyr	290		295		300	
Trp Thr Lys Tyr Tyr Asp Phe Lys Asn Pro Ile Ile Glu Lys Tyr Leu	305		310		315	320
Arg Arg Gln Leu Thr Lys Pro Arg Pro Val Ile Leu Asp Pro Ala Asp	325		330		335	
Pro Thr Gly Asn Leu Gly Gly Gly Asp Pro Lys Gly Trp Arg Gln Leu	340		345		350	
Ala Gln Glu Ala Glu Ala Trp Leu Asn Tyr Pro Cys Phe Lys Asn Trp						



## 4104

355 360 365  
Asp Gly Ser Pro Val Ser Ser Trp Ile Leu Leu Val Arg Pro Pro Ala  
370 375 380  
Ser Ser Leu Pro Phe Ile Pro Ala Pro Leu His Glu Ala  
385 390 395

<210> 4534

<211> 262

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4534

## 4105

Pro His Arg Ile Pro Ser Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr  
 1 5 10 15  
 Gln Gln Leu Xaa Lys Ile Ala Glu Gly Xaa Leu Gln Pro Met Ile Val  
 20 25 30  
 Ser Ala Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys  
 35 40 45  
 Pro Thr Gly Xaa Xaa Lys Xaa Ser Ser Ser Met Ala Asp Gly Asp Asn  
 50 55 60  
 Ser Tyr Xaa Leu Glu Ala Xaa Ile Arg Gln Met Asn Ala Phe His Thr  
 65 70 75 80  
 Val Met Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe  
 85 90 95  
 Lys Gln Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu  
 100 105 110  
 Leu Arg Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr  
 115 120 125  
 Asn Ile Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln  
 130 135 140  
 Ser Gly Ala Val Gln Thr Met Glu Pro Leu Ile Gln Ala Ala Gln Leu  
 145 150 155 160  
 Leu Gln Leu Lys Lys Lys Thr Gln Glu Asp Ala Glu Ala Ile Cys Ser  
 165 170 175  
 Leu Cys Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu  
 180 185 190  
 Tyr Thr Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile  
 195 200 205  
 Arg Thr Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp Pro Gln Gln Leu  
 210 215 220  
 Leu Leu Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro  
 225 230 235 240  
 Ser Ser Leu Thr Met Asp Ser Ile His Ile Pro Ala Cys Leu Asn Leu  
 245 250 255  
 Glu Phe Leu Asn Glu Val  
 260

## 4106

&lt;210&gt; 4535

&lt;211&gt; 451

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (371)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4535

Gly	Met	Glu	Gly	Ser	Lys	Thr	Ser	Asn	Asn	Ser	Thr	Met	Gln	Val	Ser
1				5					10					15	

Phe	Val	Cys	Gln	Arg	Cys	Ser	Gln	Pro	Leu	Lys	Leu	Asp	Thr	Ser	Phe
			20					25					30		

Lys	Ile	Leu	Asp	Arg	Val	Thr	Ile	Gln	Glu	Leu	Thr	Ala	Pro	Leu	Leu
	35						40					45			

Thr	Thr	Ala	Gln	Ala	Lys	Pro	Gly	Glu	Thr	Gln	Glu	Glu	Glu	Thr	Asn
	50					55					60				

Ser	Gly	Glu	Glu	Pro	Phe	Ile	Glu	Thr	Pro	Arg	Gln	Asp	Gly	Val	Ser
65					70					75					80

Arg	Arg	Phe	Ile	Pro	Pro	Ala	Arg	Met	Met	Ser	Thr	Glu	Ser	Ala	Asn
				85					90					95	

Ser	Phe	Thr	Leu	Ile	Gly	Glu	Ala	Ser	Asp	Gly	Gly	Thr	Met	Glu	Asn
			100					105					110		

Leu	Ser	Arg	Arg	Leu	Lys	Val	Thr	Gly	Asp	Leu	Phe	Asp	Ile	Met	Ser
		115					120					125			

Gly	Gln	Thr	Asp	Val	Asp	His	Pro	Leu	Cys	Glu	Glu	Cys	Thr	Asp	Thr
	130					135					140				

Leu	Leu	Asp	Gln	Leu	Asp	Thr	Gln	Leu	Asn	Val	Thr	Glu	Asn	Glu	Cys
145					150					155					160

Gln	Asn	Tyr	Lys	Arg	Cys	Leu	Glu	Ile	Leu	Glu	Gln	Met	Asn	Glu	Asp
			165						170					175	

Asp	Ser	Glu	Gln	Leu	Gln	Met	Glu	Leu	Lys	Glu	Leu	Ala	Leu	Glu	Glu
			180					185					190		

Glu	Arg	Leu	Ile	Gln	Glu	Leu	Glu	Asp	Val	Glu	Lys	Asn	Arg	Lys	Ile
		195					200					205			

## 4107

Val Ala Glu Asn Leu Glu Lys Val Gln Ala Glu Ala Glu Arg Leu Asp  
 210 215 220

Gln Glu Glu Ala Gln Tyr Gln Arg Glu Tyr Ser Glu Phe Lys Arg Gln  
 225 230 235 240

Gln Leu Glu Leu Asp Asp Glu Leu Lys Ser Val Glu Asn Gln Met Arg  
 245 250 255

Tyr Ala Gln Thr Gln Leu Asp Lys Leu Lys Lys Thr Asn Val Phe Asn  
 260 265 270

Ala Thr Phe His Ile Trp His Ser Gly Gln Phe Gly Thr Ile Asn Asn  
 275 280 285

Phe Arg Leu Gly Arg Leu Pro Ser Val Pro Val Glu Trp Asn Glu Ile  
 290 295 300

Asn Ala Ala Trp Gly Gln Thr Val Leu Leu Leu His Ala Leu Ala Asn  
 305 310 315 320

Lys Met Gly Leu Lys Phe Gln Arg Tyr Arg Leu Val Pro Tyr Gly Asn  
 325 330 335

His Ser Tyr Leu Glu Ser Leu Thr Asp Lys Ser Lys Glu Leu Pro Leu  
 340 345 350

Tyr Cys Ser Gly Gly Leu Arg Phe Phe Trp Asp Asn Lys Phe Asp His  
 355 360 365

Ala Met Xaa Ala Phe Leu Asp Cys Val Gln Gln Phe Lys Glu Glu Val  
 370 375 380

Glu Lys Gly Glu Thr Arg Phe Cys Leu Pro Tyr Arg Met Asp Val Glu  
 385 390 395 400

Lys Gly Lys Ile Glu Asp Thr Gly Gly Ser Gly Gly Ser Tyr Ser Ile  
 405 410 415

Lys Thr Gln Phe Asn Ser Glu Glu Gln Trp Thr Lys Ala Leu Lys Phe  
 420 425 430

Met Leu Thr Asn Leu Lys Trp Gly Leu Ala Trp Val Ser Ser Gln Phe  
 435 440 445

Tyr Asn Lys  
 450

## 4108

&lt;210&gt; 4536

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4536

Val Tyr Ile Arg Asp Pro Leu Val His Ser Thr Ala Asp Ile Ser Ser  
 1 5 10 15

Ile Phe Asn Thr Thr Val Cys Ser Lys Ala Arg Trp Ser Leu Leu Lys  
 20 25 30

Leu His Phe  
 35

&lt;210&gt; 4537

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4537

Asn Asn Cys Ser Leu Leu Trp Val Leu Leu Ala Gly Phe Arg Leu Gly  
 1 5 10 15

Asn Val Val His Ala Ile Gln Ala Thr Glu Gln Ser Ile His Ala Thr  
 20 25 30

Asp Leu Val Pro Arg Leu Cys Leu Thr Leu Ala Asn Leu Asn Arg Val  
 35 40 45

Ile Tyr Phe Ile Cys Asp Thr Ile Leu Trp Val Arg Ser Val Gly Leu  
 50 55 60

Thr Ser Gly Ile Asn Lys Glu Lys Trp Arg Thr Arg Ala Ala His His  
 65 70 75 80

Tyr Tyr Tyr Ser Leu Leu Leu Ser Leu Val Arg Asp Leu Tyr Glu Ile  
 85 90 95

Ser Leu Gln Met Lys Arg Val Thr Cys Asp Arg Ala Lys Lys Glu Lys  
 100 105 110

Ser Ala Ser Gln Asp Pro Leu Trp Phe Ser Val Ala Glu Glu Xaa Thr  
 115 120 125

## 4109

Glu Trp Leu Gln Ser Phe Leu Leu Leu Leu Phe Arg Ser Leu Lys Gln  
 130 135 140

His Pro Pro Leu Leu Leu Asp Thr Val Lys Asn Leu Cys Asp Ile Leu  
 145 150 155 160

Asn Pro Leu Asp Leu Leu Gly Ile Tyr Lys Ser Asn Pro Gly Ile Ile  
 165 170 175

Gly Leu Gly Gly Leu Val Ser Ser Ile Ala Gly Met Ile Thr Val Ala  
 180 185 190

Tyr Pro Gln Met Lys Leu Lys Thr Arg  
 195 200

<210> 4538

<211> 70

<212> PRT

<213> Homo sapiens

<400> 4538

Ala Asp Ile Ala Gly Val Leu Ala Ile Arg Pro Asp Glu Leu Arg Phe  
 1 5 10 15

Arg Tyr Ser Met Val Ala Tyr Trp Arg Gln Ala Gly Leu Ser Tyr Ile  
 20 25 30

Arg Tyr Ser Gln Ile Cys Ala Lys Ala Val Arg Asp Ala Leu Lys Thr  
 35 40 45

Glu Phe Lys Ala Asn Ala Glu Lys Thr Ser Gly Ser Asn Val Lys Ile  
 50 55 60

Val Lys Val Lys Lys Glu  
 65 70

<210> 4539

<211> 72

<212> PRT

<213> Homo sapiens

<400> 4539

Ile Lys Ser Leu Asp Glu Gln Cys Val Val Gly Lys Ile Ser Lys His  
 1 5 10 15

Trp Thr Gly Ile Leu Arg Glu Ala Phe Thr Asp Ala Asp Asn Phe Gly

## 4110

	20		25		30										
Ile	Gln	Phe	Pro	Leu	Asp	Leu	Asp	Val	Lys	Met	Lys	Ala	Val	Met	Ile
	35				40					45					
Gly	Ala	Cys	Phe	Leu	Ile	Asp	Phe	Met	Phe	Phe	Glu	Ser	Thr	Gly	Ser
	50				55					60					
Gln	Glu	Gln	Lys	Ser	Gly	Val	Trp								
65					70										

&lt;210&gt; 4540

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (364)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (370)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (372)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (374)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4540

Ser	Asn	Leu	Val	Pro	Val	Asp	Ile	Ile	Glu	Ser	Val	Val	Ser	Lys	Glu
1				5					10					15	

Met	Asp	Lys	Arg	Tyr	Leu	Gln	Phe	Asp	Ile	Lys	Ala	Phe	Val	Glu	Asn
	20							25					30		

Asn	Pro	Ala	Ile	Lys	Trp	Cys	Pro	Thr	Pro	Gly	Cys	Asp	Arg	Ala	Val
	35						40					45			

Arg	Leu	Thr	Lys	Gln	Gly	Ser	Asn	Thr	Ser	Gly	Ser	Asp	Thr	Leu	Ser
	50					55						60			

## 4111

Phe	Pro	Leu	Leu	Arg	Ala	Pro	Ala	Val	Asp	Cys	Gly	Lys	Gly	His	Leu	65	70	75	80
Phe	Cys	Trp	Glu	Cys	Leu	Gly	Glu	Ala	His	Glu	Pro	Cys	Asp	Cys	Gln	85	90	95	
Thr	Trp	Lys	Asn	Trp	Leu	Gln	Lys	Ile	Thr	Glu	Met	Lys	Pro	Glu	Glu	100	105	110	
Leu	Val	Gly	Val	Ser	Glu	Ala	Tyr	Glu	Asp	Ala	Ala	Asn	Cys	Leu	Trp	115	120	125	
Leu	Leu	Thr	Asn	Ser	Lys	Pro	Cys	Ala	Asn	Cys	Lys	Ser	Pro	Ile	Gln	130	135	140	
Lys	Asn	Glu	Gly	Cys	Asn	His	Met	Gln	Cys	Ala	Lys	Cys	Lys	Tyr	Asp	145	150	155	160
Phe	Cys	Trp	Ile	Cys	Leu	Glu	Glu	Trp	Lys	Lys	His	Ser	Ser	Ser	Thr	165	170	175	
Gly	Gly	Tyr	Tyr	Arg	Cys	Thr	Arg	Tyr	Glu	Val	Ile	Gln	His	Val	Glu	180	185	190	
Glu	Gln	Ser	Lys	Glu	Met	Thr	Val	Glu	Ala	Glu	Lys	Lys	His	Lys	Arg	195	200	205	
Phe	Gln	Glu	Leu	Asp	Arg	Phe	Met	His	Tyr	Tyr	Thr	Arg	Phe	Lys	Asn	210	215	220	
His	Glu	His	Ser	Tyr	Gln	Leu	Glu	Gln	Arg	Leu	Leu	Lys	Thr	Ala	Lys	225	230	235	240
Glu	Lys	Met	Glu	Gln	Leu	Ser	Arg	Ala	Leu	Lys	Glu	Thr	Glu	Gly	Gly	245	250	255	
Cys	Pro	Asp	Thr	Thr	Phe	Ile	Glu	Asp	Ala	Val	His	Val	Leu	Leu	Lys	260	265	270	
Thr	Arg	Arg	Ile	Leu	Lys	Cys	Ser	Tyr	Pro	Tyr	Gly	Phe	Phe	Leu	Glu	275	280	285	
Pro	Lys	Ser	Thr	Lys	Lys	Glu	Ile	Phe	Glu	Leu	Met	Gln	Thr	Asp	Leu	290	295	300	
Glu	Met	Val	Thr	Glu	Asp	Leu	Ala	Gln	Lys	Val	Asn	Arg	Pro	Tyr	Leu	305	310	315	320
Arg	Thr	Pro	Arg	His	Lys	Ile	Ile	Lys	Ala	Ala	Cys	Leu	Val	Gln	Gln	325	330	335	



## 4112

Lys Arg Gln Glu Phe Leu Gly Ile Cys Gly Leu Gly Gly Val Ala Pro  
                   340                  345                  350

Ala Asp Ser Pro Glu Ala Ser Lys Ala His Phe Xaa Gly Gly Asn Met  
                   355                  360                  365

Gly Xaa Gly Xaa Tyr Xaa Gly Val  
           370                  375

<210> 4541

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4541

Ala Arg Val Lys Leu Lys Tyr Cys Phe Thr Cys Lys Met Phe Arg Pro  
   1                  5                  10                  15

Pro Arg Thr Ser His Cys Ser Val Cys Asp Asn Cys Val Glu Arg Phe  
                   20                  25                  30

Asp His His Cys Pro Trp Val Gly Asn Cys Val Gly Arg Arg Asn Tyr  
                   35                  40                  45

Arg Phe Phe Tyr Ala Phe Ile Leu Ser Leu Ser Phe Leu Thr Ala Phe  
                   50                  55                  60

Ile Phe Ala Cys Val Val Thr His Leu Thr Leu Arg Ala Gln Gly Ser  
   65                  70                  75                  80

Asn Phe Leu Ser Thr Leu Lys Glu Thr Pro Ala Ser Val Leu Gly Val  
                   85                  90                  95

Gly Asp Leu Leu Leu Leu His Leu Val His Ser Gly Pro Leu Arg Val  
                   100                  105                  110

Ser His Val Pro Arg Arg Leu Gln Pro Asp Tyr  
                   115                  120

<210> 4542

<211> 245

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (138)

## 4113

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (238)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4542

Gly	Asp	Thr	Thr	Ile	Pro	Leu	Ser	Leu	Cys	Leu	Ser	Gln	Arg	Pro	His
1				5				10						15	

Leu	Thr	Ser	Pro	Lys	Gly	Ser	Arg	Cys	Ser	Arg	His	Thr	Phe	Ala	Pro
			20					25					30		

Ala	Ala	Met	Thr	Leu	Ser	Pro	Leu	Leu	Leu	Phe	Leu	Pro	Pro	Leu	Leu
		35					40					45			

Leu	Leu	Leu	Asp	Val	Pro	Thr	Ala	Ala	Val	Gln	Ala	Ser	Pro	Leu	Gln
		50				55					60				

Ala	Leu	Asp	Phe	Phe	Gly	Asn	Gly	Pro	Pro	Val	Asn	Tyr	Lys	Thr	Gly
65					70					75					80

Asn	Leu	Tyr	Leu	Arg	Gly	Pro	Leu	Lys	Lys	Ser	Asn	Ala	Pro	Leu	Val
				85					90					95	

## 4114

Asn Val Thr Leu Tyr Tyr Glu Ala Leu Cys Gly Gly Cys Arg Ala Phe  
 100 105 110

Leu Ile Arg Glu Leu Phe Pro Thr Trp Leu Leu Val Met Glu Ile Leu  
 115 120 125

Asn Val Thr Leu Val Pro Tyr Gly Asn Xaa Gln Glu Gln Xaa Xaa Xaa  
 130 135 140

Gly Arg Trp Glu Phe Lys Cys Gln His Gly Glu Glu Glu Cys Lys Phe  
 145 150 155 160

Asn Lys Val Glu Ala Cys Val Leu Asp Glu Leu Asp Met Glu Leu Ala  
 165 170 175

Phe Leu Thr Ile Val Cys Met Glu Glu Phe Glu Asp Met Glu Arg Ser  
 180 185 190

Leu Pro Leu Cys Cys Ser Ser Thr Pro Arg Leu Ser Gln Asn Tyr His  
 195 200 205

Glu Cys Ala Met Gly Arg Gly Xaa Ser His His Ala Thr Pro Arg Gln  
 210 215 220

Ile Ser Gln His Lys Asp Met Ser Trp Tyr Ala Met Glu Xaa Glu Ile  
 225 230 235 240

Thr Ser Leu Xaa Val  
 245

<210> 4543

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4543

Tyr Trp Cys Glu Gln Cys Asp Val Gln Phe Ser Ser Ser Ser Glu Leu  
 1 5 10 15

Tyr Leu His Phe Gln Glu His Ser Cys Asp Glu Gln Tyr Leu Cys Gln  
 20 25 30

Phe Cys Glu His Glu Thr Asn Asp Pro Glu Asp Leu His Ser His Val  
 35 40 45

Val Asn Glu His Ala Cys Lys Leu Ile Glu Leu Ser Asp Lys Tyr Asn  
 50 55 60

Asn Gly Glu His Gly Gln Tyr Ser Leu Leu Ser Lys Ile Thr Phe Asp

[illegible]

```
<210> 4544
<211> 272
<212> PRT
<213> Homo sapiens
```

<400> 4544

Gly	His	Ala	Met	Ile	Asp	Leu	Arg	Ser	Asp	Thr	Val	Thr	Arg	Pro	Ser
1				5					10					15	
Arg	Ala	Met	Leu	Glu	Ala	Met	Met	Ala	Ala	Pro	Val	Gly	Asp	Asp	Val
			20					25					30		
Tyr	Gly	Asp	Asp	Pro	Thr	Val	Asn	Ala	Leu	Gln	Asp	Tyr	Ala	Ala	Glu
		35					40					45			
Leu	Ser	Gly	Lys	Glu	Ala	Ala	Ile	Phe	Leu	Pro	Thr	Gly	Thr	Gln	Ala
	50					55					60				
Asn	Leu	Val	Ala	Leu	Leu	Ser	His	Cys	Glu	Arg	Gly	Glu	Glu	Tyr	Ile
65					70					75					80
Val	Gly	Gln	Ala	Ala	His	Asn	Tyr	Leu	Phe	Glu	Ala	Gly	Gly	Ala	Ala
				85					90					95	

## 4116

Val Leu Gly Ser Ile Gln Pro Gln Pro Ile Asp Ala Ala Ala Asp Gly  
 100 105 110  
 Thr Leu Pro Leu Asp Lys Val Ala Met Lys Ile Lys Pro Asp Asp Ile  
 115 120 125  
 His Phe Ala Arg Thr Lys Leu Leu Ser Leu Glu Asn Thr His Asn Gly  
 130 135 140  
 Lys Val Leu Pro Arg Glu Tyr Leu Lys Glu Ala Trp Glu Phe Thr Arg  
 145 150 155 160  
 Glu Arg Asn Leu Ala Leu His Val Asp Gly Ala Arg Ile Phe Asn Ala  
 165 170 175  
 Val Val Ala Tyr Gly Cys Glu Leu Lys Glu Ile Thr Gln Tyr Cys Asp  
 180 185 190  
 Ser Phe Thr Ile Cys Leu Ser Lys Gly Leu Gly Thr Pro Val Gly Ser  
 195 200 205  
 Leu Leu Val Gly Asn Arg Asp Tyr Ile Lys Arg Ala Ile Arg Trp Arg  
 210 215 220  
 Lys Met Thr Gly Gly Gly Met Arg Gln Ser Gly Ile Leu Ala Ala Ala  
 225 230 235 240  
 Gly Ile Tyr Ala Leu Lys Asn Asn Val Ala Arg Leu Gln Glu Asp His  
 245 250 255  
 Asp Asn Ala Ala Trp Met Ala Asp Ser Cys Val Lys Gln Ala Arg Met  
 260 265 270

&lt;210&gt; 4545

&lt;211&gt; 21

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4545

Glu Cys Lys Met Val Gln Pro Leu Trp Lys Thr Ile Trp His Ser Phe  
 1 5 10 15

Asn Pro Ser Asn Ser  
 20

## 4117

&lt;210&gt; 4546

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (196)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4546

Arg	Gln	Arg	Arg	Lys	Gly	Gly	Gln	Glu	Arg	Gly	Arg	Arg	Gly	Lys	Met
1				5					10					15	

Ala	Ala	Thr	Lys	Arg	Lys	Arg	Arg	Gly	Gly	Phe	Ala	Val	Gln	Ala	Lys
			20					25					30		

Lys	Pro	Lys	Arg	Asn	Glu	Ile	Asp	Ala	Glu	Pro	Pro	Ala	Lys	Arg	His
		35					40					45			

Ala	Thr	Ala	Glu	Glu	Val	Glu	Glu	Glu	Glu	Arg	Asp	Arg	Ile	Pro	Gly
	50					55					60				

Pro	Val	Cys	Lys	Gly	Lys	Trp	Lys	Asn	Lys	Glu	Arg	Ile	Leu	Ile	Phe
65					70					75					80

Ser	Ser	Arg	Gly	Ile	Asn	Phe	Arg	Thr	Arg	His	Leu	Met	Gln	Asp	Leu
				85					90					95	

Arg	Met	Leu	Met	Pro	His	Ser	Lys	Ala	Asp	Thr	Lys	Met	Asp	Arg	Lys
			100					105					110		

Asp	Lys	Leu	Phe	Val	Ile	Asn	Glu	Val	Cys	Glu	Met	Lys	Asn	Cys	Asn
	115						120					125			

Lys	Cys	Ile	Tyr	Phe	Glu	Ala	Lys	Lys	Lys	Gln	Asp	Leu	Tyr	Met	Trp
	130					135					140				

Leu	Ser	Asn	Ser	Pro	His	Gly	Pro	Ser	Ala	Lys	Phe	Leu	Val	Gln	Asn
145					150					155					160

Ile	His	Thr	Leu	Ala	Glu	Leu	Lys	Met	Thr	Gly	Asn	Cys	Leu	Lys	Gly
			165						170					175	

Ser	Arg	Pro	Leu	Leu	Ser	Phe	Asp	Pro	Ala	Phe	Asp	Glu	Leu	Pro	His
			180					185					190		

Tyr	Ala	Leu	Xaa	Lys	Glu	Leu	Leu	Ile	Gln	Ile	Phe	Ser	Thr	Pro	Arg
		195					200					205			

## 4118

Tyr His Pro Lys Ser Gln Pro Phe Val Asp His Val Phe Thr Phe Thr  
 210 215 220  
 Ile Leu Asp Asn Arg Ile Trp Phe Arg Asn Phe Gln Ile Ile Glu Glu  
 225 230 235 240  
 Asp Ala Ala Leu Val Glu Ile Gly Pro Arg Phe Val Leu Asn Leu Ile  
 245 250 255  
 Lys Ile Phe Gln Gly Ser Phe Gly Gly Pro Thr Leu Tyr Glu Asn Pro  
 260 265 270  
 His Tyr Gln Ser Pro Asn Met His Arg Arg Val Ile Arg Ser Ile Thr  
 275 280 285  
 Ala Ala Lys Tyr Arg Glu Lys Gln Gln Val Lys Asp Val Gln Lys Leu  
 290 295 300  
 Arg Lys Lys Glu Pro Lys Thr Leu Leu Pro His Asp Pro Thr Ala Asp  
 305 310 315 320  
 Val Phe Val Thr Pro Ala Glu Glu Lys Pro Ile Glu Ile Gln Trp Val  
 325 330 335  
 Lys Pro Glu Pro Lys Val Asp Leu Lys Ala Arg Lys Lys Arg Ile Tyr  
 340 345 350  
 Lys Arg Gln Arg Lys Met Lys Gln Arg Met Asp Ser Gly Lys Thr Lys  
 355 360 365

&lt;210&gt; 4547

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4547

Ile Pro Gly Ser Thr His Ala Ser Ala Gly Asn Leu Asp Ser Pro Glu  
 1 5 10 15  
 Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu Ile  
 20 25 30  
 Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala Gly  
 35 40 45

## 4119

Phe	His	Phe	Ala	Gly	Asp	Gly	Lys	Leu	Gly	Gly	Ile	Val	Leu	Pro	Asn	50	55	60	
Asp	Gly	Gln	Cys	His	Leu	Glu	Asn	Asn	Met	Tyr	Thr	Met	Ser	His	Tyr	65	70	75	80
Tyr	Asp	Tyr	Pro	Ser	Ile	Ala	His	Leu	Val	Gln	Lys	Leu	Ser	Glu	Asn	85	90	95	
Asn	Ile	Gln	Thr	Ile	Phe	Ala	Val	Thr	Glu	Glu	Phe	Gln	Pro	Val	Tyr	100	105	110	
Lys	Glu	Leu	Lys	Asn	Leu	Ile	Pro	Lys	Ser	Ala	Val	Gly	Thr	Leu	Ser	115	120	125	
Ala	Asn	Ser	Ser	Asn	Val	Ile	Gln	Leu	Ile	Ile	Asp	Ala	Tyr	Asn	Ser	130	135	140	
Leu	Ser	Ser	Glu	Val	Ile	Leu	Glu	Asn	Gly	Lys	Leu	Ser	Glu	Gly	Val	145	150	155	160
Thr	Ile	Ser	Tyr	Lys	Ser	Tyr	Cys	Lys	Asn	Gly	Val	Asn	Gly	Thr	Gly	165	170	175	
Glu	Asn	Gly	Arg	Lys	Cys	Ser	Asn	Ile	Ser	Ile	Gly	Asp	Glu	Val	Gln	180	185	190	
Phe	Glu	Ile	Ser	Ile	Thr	Ser	Asn	Lys	Cys	Pro	Lys	Lys	Asp	Ser	Asp	195	200	205	
Ser	Phe	Lys	Ile	Arg	Pro	Leu	Gly	Phe	Thr	Glu	Glu	Val	Glu	Val	Ile	210	215	220	
Leu	Gln	Tyr	Ile	Cys	Glu	Cys	Glu	Cys	Gln	Ser	Glu	Gly	Ile	Pro	Glu	225	230	235	240
Ser	Pro	Lys	Cys	His	Glu	Gly	Asn	Gly	Thr	Phe	Glu	Cys	Gly	Ala	Cys	245	250	255	
Arg	Cys	Asn	Glu	Gly	Arg	Val	Gly	Arg	His	Cys	Glu	Cys	Ser	Thr	Asp	260	265	270	
Glu	Val	Asn	Ser	Glu	Asp	Met	Asp	Ala	Tyr	Cys	Arg	Lys	Glu	Asn	Ser	275	280	285	
Ser	Glu	Ile	Cys	Ser	Asn	Asn	Gly	Glu	Cys	Val	Cys	Gly	Gln	Cys	Val	290	295	300	
Cys	Arg	Lys	Arg	Asp	Asn	Thr	Asn	Glu	Ile	Tyr	Ser	Gly	Lys	Phe	Cys	305	310	315	320



## 4120

Glu Cys Asp Asn Phe Asn Cys Asp Arg Ser Asn Gly Leu Ile Cys Gly  
 325 330 335  
 Gly Asn Gly Val Cys Lys Cys Arg Val Cys Glu Cys Asn Pro Asn Tyr  
 340 345 350  
 Thr Gly Ser Ala Cys Asp Cys Ser Leu Asp Thr Ser Thr Cys Glu Ala  
 355 360 365  
 Ser Asn Gly Gln Ile Cys Asn Gly Arg Gly Ile Cys Glu Cys Gly Val  
 370 375 380  
 Cys Lys Cys Thr Asp Pro Lys Phe Gln Gly Gln Thr Cys Glu Met Cys  
 385 390 395 400  
 Gln Thr Cys Leu Gly Val Cys Ala Glu His Lys Glu Cys Val Gln Cys  
 405 410 415  
 Arg Ala Phe Asn Lys Gly Glu Lys Lys Asp Thr Cys Thr Gln Glu Cys  
 420 425 430  
 Ser Tyr Phe Asn Ile Thr Lys Val Glu Ser Arg Asp Lys Leu Pro Gln  
 435 440 445  
 Pro Val Gln Pro Asp Pro Val Ser His Cys Lys Glu Lys Asp Val Asp  
 450 455 460  
 Asp Cys Trp Phe Tyr Phe Thr Tyr Ser Val Asn Gly Asn Asn Glu Val  
 465 470 475 480  
 Met Val His Val Val Glu Asn Pro Glu Cys Pro Thr Gly Pro Asp Ile  
 485 490 495  
 Ile Pro Ile Val Ala Gly Val Val Ala Gly Ile Val Leu Ile Gly Leu  
 500 505 510  
 Ala Leu Leu Leu Ile Trp Lys Leu Leu Met Ile Ile His Asp Arg Arg  
 515 520 525  
 Glu Phe Ala Lys Phe Glu Lys Glu Lys Met Asn Ala Lys Trp Asp Thr  
 530 535 540  
 Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val Asn Pro  
 545 550 555 560  
 Lys Tyr Glu Gly Lys  
 565

&lt;210&gt; 4548

## 4121

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4548

Val	Thr	Ser	Lys	Thr	Gln	Val	Gly	Leu	Phe	Lys	Phe	Leu	Lys	Phe	Glu
1				5					10					15	

Ile	Phe	Tyr	Leu	Gln	Lys	Ile	Val	Leu	Cys	Phe	Ile	Ile	Ser	Gln	Met
			20					25					30		

Ser	Val	Arg	Phe	Leu	Ser	Thr	Asn	Asp	His	Ala	Ser	Ile	Phe	Phe	Ser
		35					40					45			

Phe	Lys	Pro	Pro	Asn	Gln	Tyr	Phe	Ser	Phe	Lys	Phe
	50					55					60

&lt;210&gt; 4549

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4549

Thr	Arg	His	Lys	Ala	Gln	Leu	Ile	Phe	Val	Phe	Leu	Val	Glu	Thr	Gly
1				5					10					15	

Phe	Asp	Tyr	Val	Gly	Gln	Ala	Gly	Leu	Lys	Leu	Leu	Thr	Ser	Ser	Asp
			20					25					30		

Pro	Pro	Ala	Ser	Ala	Ser	Gln	Arg	Xaa	Gly	Thr	Ile	Asp	Met	Ser	His
		35					40					45			

Arg	Ala	Trp	Pro	Ser
	50			

&lt;210&gt; 4550

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4122

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4550

Ala	Gln	Xaa	Leu	Ser	Ser	Pro	Val	Arg	Gly	Ile	Ser	Gly	Glu	Gln	Ser
1				5					10					15	

Thr	Xaa	Gly	Ser	Phe	Pro	Leu	Arg	Tyr	Val	Gln	Asp	Gln	Val	Ala	Ala
			20					25					30		

Pro	Phe	Gln	Leu	Ser	Asn	His	Thr	Gly	Arg	Ile	Lys	Val	Val	Phe	Thr
		35					40					45			

Pro	Ser	Ile	Cys	Lys	Val	Thr	Cys	Thr	Lys	Gly	Ser	Cys	Gln	Asn	Ser
	50					55					60				

Cys	Glu	Lys	Gly	Asn	Thr	Thr	Thr	Leu	Ile	Ser	Glu	Asn	Gly	His	Ala
65					70					75					80

Ala	Asp	Thr	Leu	Thr	Ala	Thr	Asn	Phe	Arg	Val	Val	Ile	Cys	His	Leu
				85					90					95	

Pro	Cys	Met	Asn	Gly	Gly	Gln	Cys	Ser	Ser	Arg	Asp	Lys	Cys	Gln	Cys
			100					105					110		

Pro	Pro	Asn	Phe	Thr	Gly	Lys	Leu	Cys	Gln	Ile	Pro	Val	His	Gly	Ala
		115					120					125			

Ser	Val	Xaa	Lys	Leu	Tyr	Gln	His	Ser	Gln	Gln	Pro	Gly	Lys	Ala	Leu
	130					135					140				

Gly	Thr	His	Val	Ile	His	Ser	Thr	His	Thr	Leu	Pro	Leu	Thr	Val	Thr
145					150					155					160

Ser	Gln	Gln	Glu	Ser	Lys
				165	

&lt;210&gt; 4551

&lt;211&gt; 60

## 4123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4551

Cys Val Pro Ser Thr Ser Ser Pro Gly Ile Ile Leu Ser Leu Ala Leu  
 1 5 10 15

Ala Gly Ile Leu Gly Ile Cys Ile Val Val Val Val Ser Ile Trp Leu  
 20 25 30

Phe Arg Arg Lys Ser Ile Lys Lys Gly Asp Asn Lys Gly Val Ile Tyr  
 35 40 45

Lys Pro Ala Thr Lys Met Glu Thr Glu Ala His Ala  
 50 55 60

&lt;210&gt; 4552

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4552

His Cys Ile Leu Met Leu Phe Glu Asn Ala Ile Tyr Ile Val Lys Lys  
 1 5 10 15

Arg Ala Gly Ala Pro Ala Ala Leu Val Pro Trp Gly Ser His Pro Ser  
 20 25 30

Pro Gly Gly Leu Leu Gly Gly Leu Arg Arg Trp Ala Thr Glu Gly Gln  
 35 40 45

Ala Gly Ala Ala His Ser Pro His Glu Gly Ile Ser Val Ser Tyr Ser  
 50 55 60

Val Gln Arg Arg Gly Lys Thr Gln Cys Pro Gly Phe Ser Pro Pro Glu  
 65 70 75 80

Met Lys Asp Thr Leu Tyr Phe Leu Pro Asn Val Pro Ala Ser Arg Phe  
 85 90 95

Ile Met Asn

&lt;210&gt; 4553

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4124

&lt;400&gt; 4553

Gly Gly Trp Phe Tyr Pro Phe Cys Leu Leu Phe Gly Thr Gln Leu Val  
1 5 10 15  
Phe Phe Gly Leu Leu Ser Ser Gly Ser Arg Ala Val Leu Ser Asn Thr  
20 25 30  
Val Thr Thr Cys Gly Cys Leu Lys Leu Ser Gln Leu Lys Ser His Lys  
35 40 45  
Ile Lys Asn Ser Phe Leu Ser Cys Thr Asn His Val Ser Arg Gly Val  
50 55 60  
Thr Val Cys Ser Ser Trp Leu Leu Tyr  
65 70

&lt;210&gt; 4554

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (126)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4125

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4554

Cys	Leu	Cys	Leu	His	Cys	Pro	Ser	Ser	Tyr	Leu	Phe	Cys	Ser	Met	Ser
1				5					10					15	

His	Ser	Tyr	Lys	Lys	Ala	Ile	Ser	Asp	Glu	Ala	Leu	Arg	Xaa	Phe	Gln
			20					25					30		

Met	Asp	Tyr	Phe	Gly	Gly	Leu	Xaa	Pro	Gly	Gln	Tyr	Ala	Thr	Arg	Met
		35					40					45			

Thr	Gly	Gln	Val	His	Gly	Ser	Gly	Cys	His	Leu	Arg	Ser	Ala	Pro	Cys
	50					55					60				

Asp	Leu	Gly	Ala	Ser	Gln	Arg	Asn	Tyr	Pro	Val	Ile	Ser	Leu	Lys	Ser
65					70						75				80

Met	Leu	Val	Cys	Phe	Pro	Lys	Ala	Asn	Gln	Gln	Leu	Ile	Gln	Thr	Leu
				85					90					95	

Gly	Pro	Gln	Ser	Arg	Trp	Asn	Asn	Gly	Arg	Arg	Leu	Pro	Glu	Cys	Gln
		100						105					110		

Val	Leu	Gln	Asp	Glu	Leu	Lys	Xaa	Arg	Val	Val	Gly	Arg	Xaa	Val	Gly
		115					120				125				

Gly	Lys	Gly	Pro	Cys	Pro	Asp	Xaa	Cys	Xaa	Pro	Cys	Ile	Tyr
	130					135					140		

&lt;210&gt; 4555

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (265)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4555

Gly	Thr	Ser	Val	Cys	Arg	Arg	Val	Glu	Lys	Asn	Trp	Gly	Ala	Val	Val
1				5					10					15	

Arg	Ser	Pro	Glu	Gly	Thr	Pro	Gln	Lys	Ile	Arg	Gln	Leu	Ile	Asp	Glu
			20					25					30		
Gly	Ile	Ala	Pro	Glu	Glu	Gly	Gly	Val	Asp	Ala	Lys	Asp	Thr	Ser	Ala
			35					40					45		
Thr	Ser	Gln	Ser	Val	Asn	Gly	Ser	Pro	Gln	Ala	Glu	Gln	Pro	Ser	Leu
			50					55					60		
Glu	Ser	Thr	Ser	Lys	Glu	Ala	Phe	Phe	Ser	Arg	Val	Glu	Thr	Phe	Ser
			65					70					75		
Ser	Leu	Lys	Trp	Ala	Gly	Lys	Pro	Phe	Glu	Leu	Ser	Pro	Leu	Val	Cys
			85					90					95		
Ala	Lys	Tyr	Gly	Trp	Val	Thr	Val	Glu	Cys	Asp	Met	Leu	Lys	Cys	Ser
			100					105					110		
Ser	Cys	Gln	Ala	Phe	Leu	Cys	Ala	Ser	Leu	Gln	Pro	Ala	Phe	Asp	Phe
			115					120					125		
Asp	Arg	Tyr	Lys	Gln	Arg	Cys	Ala	Glu	Leu	Lys	Lys	Ala	Leu	Cys	Thr
			130					135					140		
Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser	Pro	Ser	Pro	Asp	Arg
			145					150					155		
Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala	Ile	Leu	Val	Ser	Glu	Phe
			165					170					175		
Leu	Asp	Arg	Phe	Gln	Ser	Leu	Cys	His	Leu	Asp	Leu	Gln	Leu	Pro	Ser
			180					185					190		
Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys	Leu	Thr	Glu	Asp	Lys	Ile
			195					200					205		
Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu	Asp	His	Arg	Thr	Asp
			210					215					220		
Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser	Asp	Ile	Gln	Val	His	Val
			225					230					235		
Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp	Ala	Cys	Ser	Ser	Ser	Leu
			245					250					255		
Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Xaa	Cys	Ser	Gln	Cys	Met	Xaa	Lys
			260					265					270		
Val	Gly	Leu	Trp	Gly	Phe	Gln	Gln	Ile	Glu	Ser	Ser	Met	Thr	Asp	Leu
			275					280					285		

## 4127

Asp Ala Ser Leu Pro Asp Gln Leu Pro Asn Pro Arg Pro  
 290 295 300

<210> 4556

<211> 163

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4556

Xaa Glu Pro Lys Pro Ser Val Glu Pro Val Lys Ser Ile Ser Ser Met  
 1 5 10 15

Glu Leu Lys Thr Glu Pro Phe Asp Asp Phe Leu Phe Pro Ala Ser Ser  
 20 25 30

Arg Pro Ser Gly Ser Glu Thr Ala Arg Ser Val Pro Asp Met Asp Leu  
 35 40 45

Ser Gly Ser Phe Tyr Ala Ala Asp Trp Glu Pro Leu His Ser Gly Ser  
 50 55 60

Leu Gly Met Gly Pro Met Ala Gln Ser Trp Ser Pro Cys Ala Leu Arg  
 65 70 75 80

Trp Ser Pro Val Leu Pro Ala Ala Leu Leu Thr Arg Leu Pro Ser Ser  
 85 90 95

Ser Pro Thr Pro Arg Leu Thr Pro Ser Pro Ala Val Gln Leu Pro Thr  
 100 105 110

Ala Arg Ala Ala Ala Ala Met Ser Leu Pro Leu Thr Arg Ser Ala His  
 115 120 125

Pro Arg Cys Trp Pro Cys Glu Gly Ala Gly Lys Gly Arg Gln Pro Ala  
 130 135 140

Pro Thr Ser Ala Thr Ala Arg Ala Gly Ala Leu Gln Arg Gly Glu Thr  
 145 150 155 160

His Leu Pro



## 4128

&lt;210&gt; 4557

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4557

Gln Thr Ala Ser Val Trp Pro Cys Pro His Ser Tyr Met Ser Leu Ser  
 1 5 10 15

Thr Ser Thr Ser Leu Arg Ser Leu Thr Ser Arg Trp Thr Leu Tyr Ser  
 20 25 30

His Val His Leu Ile Pro Asp Glu Leu Trp Ser Tyr Leu Asp Ala Gln  
 35 40 45

Ile Arg Gly Phe Tyr Leu Ser Ile Gln Cys Ser Leu Arg Phe Gln Asp  
 50 55 60

Ile Ser Pro Gln Ala Leu Gly Phe Thr Leu Gly Ile Arg Arg Leu His  
 65 70 75 80

Val Ser Leu Glu Met Thr Cys Lys Ile  
 85

&lt;210&gt; 4558

&lt;211&gt; 353

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4558

Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser  
 1 5 10 15

Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser  
 20 25 30

Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly  
 35 40 45

Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala  
 50 55 60

Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn  
 65 70 75 80

Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys  
 85 90 95

## 4129

Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr  
100 105 110

Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala  
115 120 125

Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr  
130 135 140

Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr  
145 150 155 160

Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu  
165 170 175

Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe  
180 185 190

Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro  
195 200 205

Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu  
210 215 220

Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro  
225 230 235 240

Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu  
245 250 255

Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser  
260 265 270

Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys  
275 280 285

Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val  
290 295 300

Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu  
305 310 315 320

Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys  
325 330 335

Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro  
340 345 350

Tyr

## 4130

&lt;210&gt; 4559

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (272)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (273)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4559

Gly	Arg	Val	Gly	Gly	Arg	Val	Gly	Pro	Arg	Asp	Pro	Lys	Ala	Pro	Gly
1				5					10					15	

Gln	Phe	Gly	Arg	Pro	Val	Val	Val	Pro	His	Gly	Lys	Glu	Lys	Glu	Ala
			20					25					30		

Glu	Arg	Arg	Trp	Lys	Glu	Gly	Asn	Phe	Asn	Val	Tyr	Leu	Ser	Asp	Leu
		35					40					45			

Ile	Pro	Val	Asp	Arg	Ala	Ile	Glu	Asp	Thr	Arg	Pro	Ala	Gly	Cys	Ala
		50				55					60				

Glu	Gln	Leu	Val	His	Asn	Asn	Leu	Pro	Thr	Thr	Ser	Val	Ile	Met	Cys
65					70					75					80

Phe	Val	Asp	Glu	Val	Trp	Ser	Thr	Leu	Leu	Arg	Ser	Val	His	Ser	Val
				85					90					95	

Ile	Asn	Arg	Ser	Pro	Pro	His	Leu	Ile	Lys	Glu	Ile	Leu	Leu	Val	Asp
			100					105					110		

Asp	Phe	Ser	Thr	Lys	Asp	Tyr	Leu	Lys	Asp	Asn	Leu	Asp	Lys	Tyr	Met
		115					120					125			

Ser	Gln	Phe	Pro	Lys	Val	Arg	Ile	Leu	Arg	Leu	Lys	Glu	Arg	His	Gly
						135					140				

Leu	Ile	Arg	Ala	Arg	Leu	Ala	Gly	Ala	Gln	Asn	Ala	Thr	Gly	Asp	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

[illegible]

Leu Lys Glu Leu Ile Gln Lys Glu Leu Thr Xaa Gly Ser Lys Leu Gln  
50 55 60

## 4132

Asp Ala Glu Ile Ala Arg Leu Met Glu Asp Leu Asp Arg Asn Lys Asp  
 65 70 75 80

Gln Glu Val Asn Phe Gln Glu Tyr Val Thr Phe Leu Gly Ala Leu Ala  
 85 90 95

Leu Ile Tyr Asn Glu Ala Leu Lys Gly  
 100 105

&lt;210&gt; 4561

&lt;211&gt; 176

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4561

Leu Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala  
 1 5 10 15

Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Ala Ala  
 20 25 30

Gly His Glu Lys Leu Pro Val His Val Glu Asp Ala Leu Thr Tyr Leu  
 35 40 45

Asp Gln Val Lys Ile Arg Phe Gly Ser Asp Pro Ala Thr Tyr Asn Gly  
 50 55 60

Phe Leu Glu Ile Met Lys Glu Phe Lys Ser Gln Ser Ile Asp Thr Pro  
 65 70 75 80

Gly Val Ile Arg Arg Val Ser Gln Leu Phe His Glu His Pro Asp Leu  
 85 90 95

Ile Val Gly Phe Asn Ala Phe Leu Pro Leu Gly Tyr Arg Ile Asp Ile  
 100 105 110

Pro Lys Asn Gly Lys Leu Asn Ile Gln Ser Pro Leu Thr Ser Gln Glu  
 115 120 125

Asn Ser His Asn His Gly Asp Gly Ala Glu Asp Phe Lys Gln Gln Val  
 130 135 140

Pro Xaa Lys Glu Asp Lys Pro Gln Val Pro Leu Glu Ser Asp Ser Val  
 145 150 155 160

## 4133

Glu Phe Asn Asn Ala Ile Ser Tyr Val Asn Lys Ile Lys Thr Arg Phe  
                   165                  170                  175

<210> 4562

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4562

His Glu Xaa Arg Glu His Ala Gly Pro Lys Met Ala Ala Ser Arg Tyr  
   1                  5                  10                  15

Arg Arg Phe Leu Lys Leu Cys Glu Glu Trp Pro Val Asp Glu Thr Lys  
                   20                  25                  30

Arg Gly Arg Asp Leu Gly Ala Tyr Leu Arg Gln Arg Val Ala Gln Ala  
                   35                  40                  45

Phe Arg Glu Gly Glu Asn Thr Gln Val Ala Glu Pro Glu Ala Cys Asp  
                   50                  55                  60

Gln Met Tyr Glu Ser Leu Ala Arg Leu His Ser Asn Tyr Tyr Lys His  
   65                  70                  75                  80

Lys Tyr Pro Arg Pro Arg Asp Thr Ser Phe Ser Gly Leu Ser Leu Glu  
                   85                  90                  95

Glu Tyr Lys Leu Ile Leu Ser Thr Asp Thr Leu Glu Glu Leu Lys Glu  
                   100                  105                  110

Ile Asp Lys Gly Met Trp Lys Lys Leu Gln Glu Lys Phe Ala Pro Lys  
                   115                  120                  125

Gly Pro Glu Glu Asp His Lys Ala  
                   130                  135

<210> 4563

<211> 283

## 4134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4563

Lys	Arg	Lys	Ile	Met	Ile	Lys	Arg	His	Glu	Val	Glu	Gln	Gln	Asn	Ile
1				5					10					15	

Arg	Glu	Glu	Leu	Asn	Lys	Lys	Arg	Thr	Gln	Lys	Glu	Met	Glu	His	Ala
			20				25						30		

Met	Leu	Ile	Arg	His	Asp	Glu	Ser	Xaa	Arg	Glu	Leu	Glu	Tyr	Arg	Gln
		35					40					45			

Leu	His	Thr	Leu	Gln	Lys	Leu	Arg	Met	Asp	Leu	Ile	Arg	Leu	Gln	His
	50					55					60				

Gln	Thr	Glu	Leu	Glu	Asn	Gln	Leu	Glu	Tyr	Asn	Lys	Arg	Arg	Glu	Arg
65					70					75					80

Glu	Leu	His	Arg	Lys	His	Val	Met	Glu	Leu	Arg	Gln	Gln	Pro	Lys	Asn
				85						90				95	

Leu	Lys	Ala	Met	Xaa	Met	Gln	Ile	Lys	Lys	Gln	Phe	Gln	Asp	Thr	Cys
		100						105					110		

Lys	Val	Gln	Thr	Lys	Gln	Tyr	Lys	Ala	Leu	Lys	Asn	His	Gln	Leu	Glu
		115					120					125			

Val	Thr	Pro	Lys	Asn	Glu	His	Lys	Thr	Ile	Leu	Lys	Thr	Leu	Lys	Asp
	130					135					140				

Glu	Gln	Thr	Arg	Lys	Leu	Ala	Ile	Leu	Ala	Glu	Gln	Tyr	Glu	Gln	Ser
145					150					155					160

Ile	Asn	Glu	Met	Met	Ala	Ser	Gln	Ala	Leu	Arg	Leu	Asp	Glu	Ala	Gln
			165						170					175	

Glu	Ala	Glu	Cys	Gln	Ala	Leu	Arg	Leu	Gln	Leu	Gln	Gln	Glu	Met	Glu
			180					185					190		

Leu	Leu	Asn	Ala	Tyr	Gln	Ser	Lys	Ile	Lys	Met	Gln	Thr	Glu	Ala	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4135

195                                      200                                      205  
 His Glu Arg Glu Leu Gln Lys Leu Glu Gln Arg Val Ser Leu Arg Arg  
     210                                      215                                      220  
 Ala His Leu Glu Gln Lys Ile Glu Glu Glu Leu Ala Ala Leu Gln Lys  
     225                                      230                                      235                                      240  
 Glu Arg Ser Glu Arg Ile Lys Asn Leu Leu Glu Arg Gln Glu Arg Glu  
                                     245                                      250                                      255  
 Ile Glu Thr Phe Asp Met Glu Ser Leu Arg Met Gly Phe Gly Asn Leu  
                                     260                                      265                                      270  
 Val Thr Leu Asp Phe Pro Lys Glu Asp Tyr Arg  
                                     275                                      280

&lt;210&gt; 4564

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (203)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (460)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (461)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4564

Lys Asn Met Glu Thr Glu Gln Pro Glu Glu Thr Phe Pro Asn Thr Glu  
     1                                      5                                      10                                      15

Thr Asn Gly Glu Phe Gly Lys Arg Pro Ala Glu Asp Met Glu Glu Glu  
                                     20                                      25                                      30

Gln Ala Phe Lys Arg Ser Arg Asn Thr Asp Glu Met Val Glu Leu Arg  
                                     35                                      40                                      45

Ile Leu Leu Gln Ser Lys Asn Ala Gly Ala Val Ile Gly Lys Gly Gly  
     50                                      55                                      60



## 4136

Lys Asn Ile Lys Ala Leu Arg Thr Asp Tyr Asn Ala Ser Val Ser Val  
 65 70 75 80  
 Pro Asp Ser Ser Gly Pro Glu Arg Ile Leu Ser Ile Ser Ala Asp Ile  
 85 90 95  
 Glu Thr Ile Gly Glu Ile Leu Lys Lys Ile Ile Pro Thr Leu Glu Glu  
 100 105 110  
 Gly Leu Gln Leu Pro Ser Pro Thr Ala Thr Ser Gln Leu Pro Leu Glu  
 115 120 125  
 Ser Asp Ala Val Glu Cys Leu Asn Tyr Gln His Tyr Lys Gly Ser Asp  
 130 135 140  
 Phe Asp Cys Glu Leu Arg Leu Leu Ile His Gln Ser Leu Ala Gly Gly  
 145 150 155 160  
 Ile Ile Gly Val Lys Gly Ala Lys Ile Lys Glu Leu Arg Glu Asn Thr  
 165 170 175  
 Gln Thr Thr Ile Lys Leu Phe Gln Glu Cys Cys Pro His Ser Thr Asp  
 180 185 190  
 Arg Val Val Leu Ile Gly Gly Lys Pro Asp Xaa Val Val Glu Cys Ile  
 195 200 205  
 Lys Ile Ile Leu Asp Leu Ile Ser Glu Ser Pro Ile Lys Gly Arg Ala  
 210 215 220  
 Gln Pro Tyr Asp Pro Asn Phe Tyr Asp Glu Thr Tyr Asp Tyr Gly Gly  
 225 230 235 240  
 Phe Thr Met Met Phe Asp Asp Arg Arg Gly Arg Pro Val Gly Phe Pro  
 245 250 255  
 Met Arg Gly Arg Gly Gly Phe Asp Arg Met Pro Pro Gly Arg Gly Gly  
 260 265 270  
 Arg Pro Met Pro Pro Ser Arg Arg Asp Tyr Asp Asp Met Ser Pro Arg  
 275 280 285  
 Arg Gly Pro Pro Pro Pro Pro Pro Gly Arg Gly Gly Arg Gly Gly Ser  
 290 295 300  
 Arg Ala Arg Asn Leu Pro Leu Pro Pro Pro Pro Pro Pro Arg Gly Gly  
 305 310 315 320  
 Asp Leu Met Ala Tyr Asp Arg Arg Gly Arg Pro Gly Asp Arg Tyr Asp  
 325 330 335

## 4137

Gly Met Val Gly Phe Ser Ala Asp Glu Thr Trp Asp Ser Ala Ile Asp  
                   340                  345                  350  
 Thr Trp Ser Pro Ser Glu Trp Gln Met Ala Tyr Glu Pro Gln Gly Gly  
                   355                  360                  365  
 Ser Gly Tyr Asp Tyr Ser Tyr Ala Gly Gly Arg Gly Ser Tyr Gly Asp  
                   370                  375                  380  
 Leu Gly Gly Pro Ile Ile Thr Thr Gln Val Thr Ile Pro Lys Asp Leu  
                   385                  390                  395                  400  
 Ala Gly Ser Ile Ile Gly Lys Gly Gly Gln Arg Ile Lys Gln Ile Arg  
                   405                  410                  415  
 His Glu Ser Gly Ala Ser Ile Lys Ile Asp Glu Pro Leu Glu Gly Ser  
                   420                  425                  430  
 Glu Asp Arg Ile Ile Thr Ile Thr Gly Thr Gln Asp Gln Ile Gln Asn  
                   435                  440                  445  
 Ala Gln Tyr Leu Leu Gln Asn Ser Val Ser Ser Xaa Xaa Leu Ala Leu  
                   450                  455                  460  
 Cys  
 465

&lt;210&gt; 4565

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4565

Gln Leu Gly Pro Val Val Gly Gly Trp Tyr Lys Val Leu Asp Arg Phe  
   1                  5                  10                  15

Ile Pro Gly Thr Thr Lys Val Asp Ala Leu Lys Lys Met Leu Leu Asp  
                   20                  25                  30

Gln Gly Gly Phe Ala Pro Cys Phe Leu Gly Cys Phe Leu Pro Leu Val  
                   35                  40                  45

Gly Ala Leu Asn Gly Leu Ser Ala Gln Asp Asn Trp Pro Asn Tyr Ser

## 4138

50 55 60  
 Gly Ile Ile Leu Met Pro Leu Ser Pro Thr Thr Ile Tyr Gly Leu Leu  
 65 70 75 80  
 Cys Xaa

<210> 4566  
 <211> 63  
 <212> PRT  
 <213> Homo sapiens

<400> 4566  
 Glu Gln Lys Ser Ile Gln Asp Leu Gln Ala Leu Leu Trp Met Arg Leu  
 1 5 10 15  
 Ile Thr Met Glu Ala Ser Asn Thr His Leu Ser Met Ala Leu Ile Phe  
 20 25 30  
 Ser Thr Ser Trp Pro Leu Lys Met Thr Tyr Asn Phe Ser Val Cys Phe  
 35 40 45  
 Thr Ile Phe Tyr Lys Glu Asn Ser Ile Leu Trp Leu Ile Glu His  
 50 55 60

<210> 4567  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 4567  
 Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Arg Arg Gly Gly  
 1 5 10 15  
 Val Arg Glu Asn Met Leu Val Lys Tyr Ala Gly Arg Leu Gly Asp Thr  
 20 25 30  
 Lys Gln Arg Phe Arg His Ser Lys Ala Gly Met Arg Ser Ser Lys Leu  
 35 40 45  
 Cys Phe Asn Lys Leu His Trp Arg Val Pro Tyr Ser Leu Lys Phe Gly  
 50 55 60  
 Asn His Asp Pro Glu Pro Gly Trp Ala  
 65 70

## 4139

&lt;210&gt; 4568

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4568

Arg Thr Lys Asn Lys Thr Leu Ile Pro Thr Phe Ile Ser Thr Leu Ala  
 1 5 10 15

Lys Thr Gly Leu Ala Phe Phe Ser Asn Ser Ser Phe Ile Ser Ser Leu  
 20 25 30

Pro Cys Pro Ser Leu Pro Phe Leu Ser Gly Ile Gly Ser Val Leu Pro  
 35 40 45

Ile His Met Ala Ala Ser Leu Ile Ala Leu Val Gln Gly Ile Arg Tyr  
 50 55 60

Cys Ala Phe Trp Cys Gln Val Gln Ser Gln Val Pro Ile Tyr Glu Pro  
 65 70 75 80

Val Tyr Lys Lys Lys Lys Ile Gln Val Phe Glu Gly Glu Thr Leu His  
 85 90 95

Cys Glu

&lt;210&gt; 4569

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4569

Ala Leu Gly Phe Ser Ala Glu Gly Ala Pro Phe Pro Leu Asp Gly Ser  
 1 5 10 15

Cys His Val Ile Phe Glu Asn Ser Trp Thr Ala Pro Glu Glu Ala Leu  
 20 25 30

Phe Ser Ser Arg Lys Leu Asp Gly Gly Ser Gln Lys Trp Leu Ile Gly  
 35 40 45

## 4140

Arg Gly Gln Ala Ser Phe Gln Gly Ser Ala Val Pro Ser Trp Phe Arg  
 50 55 60  
 Glu Gly Arg Ala Trp Leu Ser Leu Ala Leu Ser Leu Ser Pro Cys Leu  
 65 70 75 80  
 Ser Ile Thr Thr Phe Pro Pro Glu Glu Xaa Asn Tyr Leu Pro Cys Lys  
 85 90 95  
 Ala Arg Phe Tyr Thr Asp Phe Thr Asn Cys Ala Lys Asn Arg Pro Cys  
 100 105 110  
 Ser Gln Lys Ala Gln Cys Phe Cys Lys Glu  
 115 120

&lt;210&gt; 4570

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4570

Pro Ser Cys Gln Arg Pro Lys Ser Val Ser Trp Cys His Val His Thr  
 1 5 10 15  
 Pro Cys His Phe Thr Leu His Leu Ser Pro Ser Phe Pro Met His Ala  
 20 25 30  
 Tyr Ser Glu His Pro Cys Val Gly Pro Ser Ser Ala Ser Arg Ala Cys  
 35 40 45  
 Ser Ala Val Gly Leu Phe Cys Gly Arg Lys Glu Ala Val Ser Ala Phe  
 50 55 60  
 Ser Asp Gly Thr Gly Val Glu Gly Arg Ser Cys Ile Val Ala Leu Leu  
 65 70 75 80  
 Asn Ser Pro Phe Cys Ser Ile Leu Val  
 85

&lt;210&gt; 4571

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

## 4141

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4571

Ser	Asn	Val	Ile	Arg	Asn	Glu	Gln	Leu	Pro	Leu	Gln	Tyr	Leu	Ala	Asp
1				5					10					15	

Val	Asp	Thr	Ser	Asp	Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser
			20					25					30		

His	His	Ser	Lys	Arg	Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu
		35					40					45			

Gly	Ala	Xaa	Xaa	Arg	Thr	Xaa	Ala	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg
	50					55					60				

Arg	Lys	Leu	Glu	Glu	Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Ser
65					70					75					80

Ser	Glu	Glu	Glu	Glu	Ser	Lys	Asp	Glu	Lys	Ala	Glu	Pro	Asn	Arg	Asp
				85					90					95	

Lys	Ser	Val	Gly	Pro	Leu	Pro	Gln	Ala	Asp	Pro	Glu	Val	Ala	Arg	Leu
		100					105					110			

Pro	Ile	Lys	Pro	Thr	Asp	Arg	Lys	Lys	Ala	Pro	Arg	Thr	Leu	Gly	Thr
		115					120					125			

Pro	Ser	Ser	Thr	Thr	Gly	Pro	Gln	Met	Arg	Ser	Cys	Gln	Ser	Trp	Arg
	130					135					140				

Thr	Glu	Trp	Gln
145			

<210> 4572

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4572

## 4142

Ala Leu Ser Pro Ala Met Val Val Pro Glu Asp Gln Leu Thr Arg Trp  
 1 5 10 15  
 His Pro Arg Phe Asn Val Asp Glu Val Pro Asp Ile Glu Pro Ala Ala  
 20 25 30  
 Leu Pro Gln Pro Pro Ala Thr Glu Lys Leu Thr Thr Ala Gln Glu Val  
 35 40 45  
 Leu Ala Arg Ala Arg Asn Leu Ile Ser Pro Arg Met Glu Lys Ala Leu  
 50 55 60  
 Ser Gln Leu Ala Leu Arg Ser Ala Ala Pro Ser Ser Pro Gly Ser Pro  
 65 70 75 80  
 Arg Pro Ala Leu Pro Ala Thr Pro Pro Ala Thr Pro Pro Ala Ala Ser  
 85 90 95  
 Pro Ser Ala Leu Lys Gly Val Ser Gln Asp Leu Leu Glu Arg Ile Arg  
 100 105 110  
 Ala Lys Glu Ala Gln Lys Gln Leu Ala Gln Met Thr Arg Cys Pro Glu  
 115 120 125  
 Gln Glu Gln Arg Leu Gln Arg Leu Glu Arg Leu Pro Glu Leu Ala Arg  
 130 135 140  
 Val Leu Arg Ser Val Phe Val Ser Glu Arg Lys Pro Ala Leu Ser Met  
 145 150 155 160  
 Glu Val Ala Cys Ala Arg Met Val Gly Ser Cys Cys Thr Ile Met Ser  
 165 170 175  
 Pro Gly Glu Met Glu Lys His Leu Leu Leu Leu Ser Glu Leu Leu Pro  
 180 185 190  
 Asp Trp Leu Ser Leu His Arg Ile Arg Thr Asp Thr Tyr Val Lys Leu  
 195 200 205  
 Asp Lys Ala Ala Asp Leu Ala His Ile Thr Ala Arg Leu Ala His Gln  
 210 215 220  
 Thr Arg Ala Glu Glu Gly Leu  
 225 230

&lt;210&gt; 4573

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4143

&lt;400&gt; 4573

```

Asp Pro Arg Val Arg His Ala Ser Gly Gly Phe Ser Leu Gly Gly Gln
 1             5             10             15

Thr Lys Trp Gln Trp Gly Pro Gly Cys Pro Leu Leu Arg Asn Gly Glu
          20             25             30

Leu Phe Ser Pro Val Leu Leu Trp Gly Leu Pro Cys Gly Thr Lys Cys
          35             40             45

Leu Gly Glu Glu Leu Leu Ala Gly Leu Gln Leu Leu Phe Val Arg Gly
          50             55             60

Gln Leu Gly Leu Val His Pro Cys Ser Glu Leu Ala Pro Lys Arg Ala
 65             70             75             80

Met Leu Asn Ser Ser Pro Ser Pro Ser Arg Gln Pro Leu Ser Leu His
          85             90             95

Ala Arg Gly Ile Gln Leu
          100

```

&lt;210&gt; 4574

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4574

```

Arg Ser Ile Gly Gly Phe Phe Pro Ala Gly Leu Thr Thr Leu Leu Ser
 1             5             10             15

Gly Leu Lys Pro Phe His Thr Phe Ile Leu Phe Phe Asn Gln Lys Ser
          20             25             30

Phe Ser Tyr Lys Ile Asn Phe Gly Gln Thr Xaa Lys Lys Lys Lys Lys
          35             40             45

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys

```



## 4144

50                                      55                                      60  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 65                                      70                                      75                                      80  
 Lys Lys Lys Lys Gly Gly Pro Xaa  
                                     85  
  
 <210> 4575  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 4575  
 Pro Thr Ala His Cys Arg Arg Leu Gly Ala Ala Glu Ala Arg Gly Ala  
 1                                      5                                      10                                      15  
 Arg Ser Trp Arg Leu Pro Val Pro Arg Leu Cys Arg Pro His Ser Arg  
                                     20                                      25                                      30  
 Gly Ala Lys Gly Gly Arg Pro Ala Ser Gly Pro Leu Pro Ser Leu Ser  
                                     35                                      40                                      45  
 Leu Arg Cys Cys Glu Arg Arg Pro Leu Arg Arg Arg Pro Ala Thr Gly  
                                     50                                      55                                      60  
 Ala Met Ser Ala Asn Glu Asp Gln Glu Met Glu Leu Glu Ala Leu Arg  
 65                                      70                                      75                                      80  
 Ser Ile Tyr Glu Gly Asp Glu Ser Phe Arg Glu Leu Ser Pro Val Ser  
                                     85                                      90                                      95  
 Phe Gln Tyr Arg Ile Gly Glu Asn Gly Asp Pro Lys Ala Phe Leu Ile  
                                     100                                      105                                      110  
 Glu Ile Ser Trp Thr Glu Thr Tyr Pro Gln Thr Pro Pro Ile Leu Ser  
                                     115                                      120                                      125  
 Met Asn Ala Phe Phe Asn Asn Thr Ile Ser Ser Ala Val Lys Gln Ser  
                                     130                                      135                                      140  
 Ile Leu Ala Lys Leu Gln Glu Ala Val Glu Ala Asn Leu Gly Thr Ala  
 145                                      150                                      155                                      160  
 Met Thr Tyr Thr Leu Phe Glu Tyr Ala Lys Asp Asn Lys Glu Gln Phe  
                                     165                                      170                                      175  
 Met Glu Asn His Asn Pro Ile Asn Ser Ala Thr Ser Ile Ser Asn Ile  
                                     180                                      185                                      190

## 4145

Ile Ser Ile Glu Thr Pro Asn Thr Ala Pro Ser Ser Lys Lys Lys Asp  
 195 200 205

Lys Lys Glu Gln Leu Ser Lys Ala Gln Lys Arg Asn Trp Gln Thr Lys  
 210 215 220

Gln Ile Thr Lys Glu Asn Phe Leu Glu Ala Gly Thr Gly Leu Met Leu  
 225 230 235 240

<210> 4576

<211> 89

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4576

Asp Ala Trp Xaa Xaa Lys Lys Glu Lys Glu Lys Glu Lys Lys Arg Lys  
 1 5 10 15

Gly Thr Ser Asp Met Thr Ala Cys Met Lys Ser Asn Arg Val Thr Pro  
 20 25 30

Val Lys Leu Lys Ser Arg Ala Val Asp Ile Leu Ser Asn Gln Gln Glu  
 35 40 45

Val Ser Arg Asn Gln Ala Val Gln Leu Leu Leu Ser Ala Ile Val Ser  
 50 55 60

Ser Gln Lys Met His Asp Asp Gly Val Val Gly Glu Gly Gln Phe Ser  
 65 70 75 80

Ile Leu Phe Lys Ser Lys Leu Pro Glu  
 85

## 4146

&lt;210&gt; 4577

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4577

Pro	Thr	Arg	Pro	Met	Val	Ser	Ser	Ile	Gln	Ala	Ser	Met	Asp	Arg	His
1				5					10					15	

Leu	Arg	Asp	Gln	Ser	Thr	Glu	Gln	Ser	Pro	Ser	Asp	Leu	Pro	Gln	Arg
			20					25					30		

Xaa	Thr	Glu	Val	Val	Ser	Ser	Ser	Ala	Lys	Ser	Gly	Ser	Leu	Gln	Thr
			35				40					45			

Gly	Leu	Pro	Glu	Ser	Phe	Pro	Leu	Thr	Gly	Gly	Thr	Glu	Asn	Leu	Asn
	50					55					60				

Thr	Glu	Thr	Thr	Asp	Gly	Cys	Val	Ala	Asp	Ala	Leu	Gly	Ala	Ala	Phe
65					70					75					80

Ala	Thr	Arg	Ser	Lys	Ala	Gln	Arg	Gly	Asn	Ser	Val	Glu	Glu	Leu	Glu
				85					90					95	

Glu	Met	Asp	Ser	Gln	Asp	Ala	Glu	Met	Thr	Asn	Thr	Thr	Glu	Pro	Met
			100					105					110		

Asp	His	Ser
		115

&lt;210&gt; 4578

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4147

&lt;400&gt; 4578

Leu Lys Asn His Gln Lys Thr His Thr Ser Glu Lys Ser Tyr Lys Cys  
 1 5 10 15

Asn Glu Cys Arg Lys Ala Phe Ser Tyr Cys Ser Gly Leu Ile Gln Cys  
 20 25 30

Gln Val Ile His Thr Ile Glu Lys Pro Tyr Glu Tyr Gly Lys Cys Gly  
 35 40 45

Lys Ala Phe Arg Gln Arg Thr Asp Leu Lys Lys His Gln Lys Met His  
 50 55 60

Thr Glu Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser  
 65 70 75 80

Gln Ser Thr Tyr Leu Thr Lys His Gln Lys Ile His Ser Glu Glu Lys  
 85 90 95

Ser Asn Ile His Thr Glu Cys Gly Glu Thr Xaa Xaa Gln Asn Ser Ser  
 100 105 110

Phe Leu Gln Gln  
 115

&lt;210&gt; 4579

&lt;211&gt; 598

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4579

Ala Thr Ser Arg Gln Pro Ser Tyr Xaa Arg Thr Trp Cys Arg Arg Cys  
 1 5 10 15

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly  
 20 25 30

Gln Leu Ala Leu Phe Ser Val Ser Asp Lys Thr Gly Leu Val Glu Phe

## 4148

35					40					45									
Ala	Arg	Asn	Leu	Thr	Ala	Leu	Gly	Leu	Asn	Leu	Val	Ala	Ser	Gly	Gly				
50					55					60									
Thr	Ala	Lys	Ala	Leu	Arg	Asp	Ala	Gly	Leu	Ala	Val	Arg	Asp	Val	Ser				
65					70					75					80				
Glu	Leu	Thr	Gly	Phe	Pro	Glu	Met	Leu	Gly	Gly	Arg	Val	Lys	Thr	Leu				
85					90					95									
His	Pro	Ala	Val	His	Ala	Gly	Ile	Leu	Ala	Arg	Asn	Ile	Pro	Glu	Asp				
100					105					110									
Asn	Ala	Asp	Met	Ala	Arg	Leu	Asp	Phe	Asn	Leu	Ile	Arg	Val	Val	Ala				
115					120					125									
Cys	Asn	Leu	Tyr	Pro	Phe	Val	Lys	Thr	Val	Ala	Ser	Pro	Gly	Val	Xaa				
130					135					140									
Val	Glu	Glu	Ala	Val	Glu	Gln	Ile	Asp	Ile	Gly	Gly	Val	Thr	Leu	Leu				
145					150					155					160				
Arg	Ala	Ala	Ala	Lys	Asn	His	Ala	Arg	Val	Thr	Val	Val	Cys	Glu	Pro				
165					170					175									
Glu	Asp	Tyr	Val	Val	Val	Ser	Thr	Glu	Met	Gln	Ser	Ser	Glu	Ser	Lys				
180					185					190									
Asp	Thr	Ser	Leu	Glu	Thr	Arg	Arg	Gln	Leu	Ala	Leu	Lys	Ala	Phe	Thr				
195					200					205									
His	Thr	Ala	Gln	Tyr	Asp	Glu	Ala	Ile	Ser	Asp	Tyr	Phe	Arg	Lys	Gln				
210					215					220									
Tyr	Ser	Lys	Gly	Val	Ser	Gln	Met	Pro	Leu	Arg	Tyr	Gly	Met	Asn	Pro				
225					230					235					240				
His	Gln	Thr	Pro	Ala	Gln	Leu	Tyr	Thr	Leu	Gln	Pro	Lys	Leu	Pro	Ile				
245					250					255									
Thr	Val	Leu	Asn	Gly	Ala	Pro	Gly	Phe	Ile	Asn	Leu	Cys	Asp	Ala	Leu				
260					265					270									
Asn	Ala	Trp	Gln	Leu	Val	Lys	Glu	Leu	Lys	Glu	Ala	Leu	Gly	Ile	Pro				
275					280					285									
Ala	Ala	Ala	Ser	Phe	Lys	His	Val	Ser	Pro	Ala	Gly	Ala	Ala	Val	Gly				
290					295					300									
Ile	Pro	Leu	Ser	Glu	Asp	Glu	Ala	Lys	Val	Cys	Met	Val	Tyr	Asp	Leu				

## 4149

305		310		315		320
Tyr Lys Thr Leu Thr Pro Ile Ser Ala Ala Tyr Ala Arg Ala Arg Gly						
	325		330		335	
Ala Asp Arg Met Ser Ser Phe Gly Asp Phe Val Ala Leu Ser Asp Val						
	340		345		350	
Cys Asp Val Pro Thr Ala Lys Ile Ile Ser Arg Glu Val Ser Asp Gly						
	355		360		365	
Ile Ile Ala Pro Gly Tyr Glu Glu Glu Ala Leu Thr Ile Leu Ser Lys						
	370		375		380	
Lys Lys Asn Gly Asn Tyr Cys Val Leu Gln Met Asp Gln Ser Tyr Lys						
	385		390		395	
Pro Asp Glu Asn Glu Val Arg Thr Leu Phe Gly Leu His Leu Ser Gln						
	405		410		415	
Lys Arg Asn Asn Gly Val Val Asp Lys Ser Leu Phe Ser Asn Val Val						
	420		425		430	
Thr Lys Asn Lys Asp Leu Pro Glu Ser Ala Leu Arg Asp Leu Ile Val						
	435		440		445	
Ala Thr Ile Ala Val Lys Tyr Thr Gln Ser Asn Ser Val Cys Tyr Ala						
	450		455		460	
Lys Asn Gly Gln Val Ile Gly Ile Gly Ala Gly Gln Gln Ser Arg Ile						
	465		470		475	
His Cys Thr Arg Leu Ala Gly Asp Lys Ala Asn Tyr Trp Trp Leu Arg						
	485		490		495	
His His Pro Gln Val Leu Ser Met Lys Phe Lys Thr Gly Val Lys Arg						
	500		505		510	
Ala Glu Ile Ser Asn Ala Ile Asp Gln Tyr Val Thr Gly Thr Ile Gly						
	515		520		525	
Glu Asp Glu Asp Leu Ile Lys Trp Lys Ala Leu Phe Glu Glu Val Pro						
	530		535		540	
Glu Leu Leu Thr Glu Ala Glu Lys Lys Glu Trp Val Glu Lys Leu Thr						
	545		550		555	
Glu Val Ser Ile Ser Ser Asp Ala Phe Phe Pro Phe Arg Asp Asn Val						
	565		570		575	
Asp Arg Ala Lys Arg Ser Gly Val Ala Tyr Ile Ala Ala Pro Pro Val						

## 4150

580

585

590

Leu Leu Leu Thr Lys Leu  
595

&lt;210&gt; 4580

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4580

Cys Ile Ser Lys Gly Glu Lys Arg Ile Gly Ile Phe Leu Phe Asn Ile  
1 5 10 15

Gln Phe Ile Glu Ser Ser Thr Leu Ile Phe Leu Asn Pro Arg Ser Ser  
20 25 30

Gly Ser Tyr His Phe Lys Arg Asn Tyr His Gln Phe Cys Val Ser Lys  
35 40 45

&lt;210&gt; 4581

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4581

His Val Phe Leu Pro Cys Ser Leu Pro Gly Arg Met Glu Phe Tyr Ile  
1 5 10 15

Thr Thr Phe Leu Cys Lys Asn Asn Gly Arg Val Glu Leu Val Val Ile  
20 25 30

Leu Ala Phe His Leu Ala Leu Val Ser Ser Ile Gly Leu Glu Ile Ile  
35 40 45

Gly Arg  
50

&lt;210&gt; 4582

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4151

&lt;400&gt; 4582

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met  
 1 5 10 15  
 Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile  
 20 25 30  
 Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val  
 35 40 45

&lt;210&gt; 4583

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4583

Asn Asp Ser Asn Thr Ala Leu Leu His His Glu Thr Asn Pro Gly Gln  
 1 5 10 15  
 Asp Pro Ile Pro Ser His Gln Pro Thr Ser Leu Leu Ala Ala Gly Gln  
 20 25 30  
 Asp Val Ala Ser Ile Thr Phe His Cys Leu Ser Pro Trp Glu Ala Ala  
 35 40 45  
 Gln Leu Arg Leu Gly Thr Arg Pro Pro Leu Leu Gly Pro Thr Gly Lys  
 50 55 60  
 Ser Val Ala Ala Thr Ala Trp Leu Thr Phe Leu Ser Ser Leu Gly Ser  
 65 70 75 80  
 Gly Thr Ala Pro Pro Cys Pro Trp Leu Gly Arg Gly Glu Lys Lys Leu  
 85 90 95  
 Ser Tyr Ala Phe Pro Leu Pro Leu Val Tyr Arg Thr Ser Leu Pro Ser  
 100 105 110  
 Gln Gln Glu Arg Arg Pro Pro Gly Val Ser Pro Gly Gln  
 115 120 125

&lt;210&gt; 4584

&lt;211&gt; 342

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;



## 4152

<221> SITE  
<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (18)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (25)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (47)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (52)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (53)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

## 4153

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (279)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4584

Ile	Thr	Trp	Pro	Thr	Thr	Gly	Pro	Xaa	Ala	Leu	Asn	Leu	Gln	Ala	His
1				5					10					15	
Trp	Xaa	Gly	Pro	Gly	Ser	Ala	Arg	Xaa	Ala	Xaa	His	His	Leu	Glu	Tyr
			20					25					30		
Arg	Cys	Ala	Pro	Arg	Pro	Pro	Ala	Val	Cys	Trp	His	Xaa	Val	Xaa	Arg
			35				40					45			
Gly	Ala	Lys	Xaa	Xaa	Ala	Xaa	Ala	Gln	Ser	Xaa	Xaa	Xaa	Asp	Thr	Cys
	50					55						60			
Ser	Val	Gln	Asn	Gly	Glu	Asp	Asp	Gly	Arg	Asn	Gln	Ala	Arg	Leu	Gly
	65				70					75					80
His	Arg	Gly	Thr	Leu	Ala	Leu	Gly	Ser	Leu	Leu	Ala	Gln	Gly	Phe	Asn
				85					90					95	
Val	Arg	Leu	Ser	Gly	Gln	Asp	Val	Gly	Arg	Gly	Thr	Phe	Ser	Gln	Arg
			100					105					110		
His	Ala	Met	Val	Val	Cys	Gln	Glu	Thr	Asp	Asp	Thr	Tyr	Ile	Pro	Leu
		115					120					125			
Asn	His	Met	Asp	Pro	Asn	Gln	Lys	Gly	Phe	Leu	Glu	Val	Ser	Asn	Ser
		130				135					140				
Pro	Leu	Ser	Glu	Glu	Ala	Val	Leu	Gly	Phe	Glu	Tyr	Gly	Met	Ser	Ile
	145				150					155					160
Glu	Ser	Pro	Lys	Leu	Leu	Pro	Leu	Trp	Glu	Ala	Gln	Phe	Gly	Asp	Phe
				165					170					175	
Phe	Asn	Gly	Ala	Gln	Ile	Ile	Phe	Asp	Thr	Phe	Ile	Ser	Gly	Gly	Glu
			180					185					190		
Ala	Lys	Trp	Leu	Leu	Gln	Ser	Gly	Ile	Val	Ile	Leu	Leu	Pro	His	Gly

## 4154

195		200		205
Tyr Asp Gly Ala Gly Pro Asp His Ser Ser Cys Arg Ile Glu Arg Phe				
210		215		220
Leu Gln Met Cys Asp Ser Ala Glu Glu Gly Val Asp Gly Asp Thr Val				
225		230		235 240
Asn Met Phe Val Val His Pro Thr Thr Pro Ala Gln Tyr Phe His Leu				
		245		250 255
Leu Arg Arg Gln Met Val Arg Asn Phe Arg Lys Pro Leu Ile Val Ala				
		260		265 270
Ser Pro Lys Met Leu Leu Xaa Leu Pro Ala Ala Val Ser Thr Leu Gln				
		275		280 285
Glu Met Ala Pro Gly Thr Thr Phe Asn Pro Val Ile Gly Asp Ser Ser				
		290		295 300
Val Asp Pro Lys Lys Val Lys Thr Leu Val Phe Cys Ser Gly Lys His				
305		310		315 320
Phe Tyr Ser Leu Val Asn Lys Glu Asn Leu Trp Gly Pro Arg Ser Met				
		325		330 335
Thr Leu Pro Ser Ser Glu				
		340		

&lt;210&gt; 4585

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4585

Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile
1 5 10 15
Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val
20 25 30
Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn
35 40 45
Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu
50 55

## 4155

&lt;210&gt; 4586

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (66)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4586

Val	His	Leu	Lys	Ala	Val	Lys	Met	Val	Leu	Ala	Asp	Leu	Gly	Arg	Lys
1				5					10					15	

Ile	Thr	Ser	Ala	Leu	Arg	Ser	Leu	Ser	Asn	Ala	Thr	Ile	Ile	Asn	Glu
			20					25					30		

Glu	Val	Cys	Lys	Ile	Leu	Tyr	Xaa	Ile	Tyr	Met	Ile	Val	Leu	Leu	Ser
		35					40					45			

Leu	Ala	Leu	Gly	Arg	Trp	Leu	Ile	His	Asn	Pro	Arg	Ile	Tyr	Met	Tyr
	50					55					60				

Phe	Xaa	Val	Asp	Leu	Ile	Leu	Val	Gly	Lys	Ser	Pro	Lys	Gly	Leu	Thr
65					70					75				80	

Val	Gly	Gly	Val	Tyr	Trp	Gly	Ile	Thr	Xaa	Asn	Ser	Asn	Tyr	Phe	Asn
				85					90					95	

Leu Pro

&lt;210&gt; 4587

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4156

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4587

Gly	Lys	Leu	Gly	Met	Leu	Gly	Gln	Glu	Gly	Lys	Val	Leu	Val	Asn	Pro
1				5					10					15	

Leu	Trp	Ser	Asn	Ile	Met	Lys	Val	Asn	Tyr	Asn	Ser	Ile	Tyr	Leu	Ser
			20					25					30		

Leu	Met	Pro	Gln	Ser	Glu	Ile	Xaa	Tyr	Xaa	Leu	Gly	Gly	His	Gly	Cys
		35					40					45			

Ala	Pro	Ile	Gln	Tyr	Thr	Phe	Xaa	Gly	Xaa	Asn	Leu	Phe	Ser	Asp	His
	50					55					60				

Phe	Met	Glu	Ser	Leu	Lys	Tyr	Leu
65					70		

&lt;210&gt; 4588

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (221)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4588

Trp	Ile	Pro	Arg	Ala	Ala	Gly	Phe	Gly	Thr	Arg	Pro	Leu	Pro	Gly	Ala
1				5					10					15	

Ala	Gly	Gly	Ala	Ala	Gly	Cys	Thr	Gln	Arg	Arg	Ser	Arg	Glu	Leu	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4157

20				25				30							
Ala	Ala	Ala	Met	Ser	His	Gln	Thr	Gly	Ile	Gln	Ala	Ser	Glu	Asp	Val
35			40					45							
Lys	Glu	Ile	Phe	Ala	Arg	Ala	Arg	Asn	Gly	Lys	Tyr	Arg	Leu	Leu	Lys
50		55					60								
Ile	Ser	Ile	Glu	Asn	Glu	Gln	Leu	Val	Ile	Gly	Ser	Tyr	Ser	Gln	Pro
65		70					75					80			
Ser	Asp	Ser	Trp	Asp	Lys	Asp	Tyr	Asp	Ser	Phe	Val	Leu	Pro	Leu	Leu
85				90					95						
Glu	Asp	Lys	Gln	Pro	Cys	Tyr	Ile	Leu	Phe	Arg	Leu	Asp	Ser	Gln	Asn
100			105					110							
Ala	Gln	Gly	Tyr	Glu	Trp	Ile	Phe	Ile	Ala	Trp	Ser	Pro	Asp	His	Ser
115			120					125							
His	Val	Arg	Gln	Lys	Met	Leu	Tyr	Ala	Ala	Thr	Arg	Ala	Thr	Leu	Lys
130		135					140								
Lys	Glu	Phe	Gly	Gly	Gly	His	Ile	Lys	Asp	Glu	Val	Phe	Gly	Thr	Val
145		150					155					160			
Lys	Glu	Asp	Val	Ser	Leu	His	Gly	Tyr	Lys	Lys	Tyr	Leu	Leu	Ser	Gln
165				170					175						
Ser	Ser	Pro	Ala	Pro	Leu	Thr	Ala	Ala	Glu	Glu	Glu	Leu	Arg	Gln	Ile
180			185					190							
Lys	Ile	Asn	Glu	Val	Gln	Thr	Asp	Val	Gly	Val	Asp	Thr	Lys	His	Gln
195		200					205								
Thr	Leu	Gln	Gly	Val	Ala	Phe	Pro	Ile	Ser	Arg	Glu	Xaa	Phe	Gln	Ala
210		215					220								
Leu	Glu	Lys	Leu	Asn	Asn	Arg	Gln	Leu	Asn	Tyr	Val	Gln	Leu	Glu	Ile
225		230					235					240			
Asp	Ile	Lys	Asn	Glu	Ile	Ile	Ile	Leu	Ala	Asn	Thr	Thr	Asn	Thr	Glu
245				250					255						
Leu	Lys	Asp	Leu	Pro	Lys	Arg	Ile	Pro	Lys	Asp	Ser	Ala	Arg	Tyr	His
260			265					270							
Phe	Phe	Leu	Tyr	Lys	His	Ser	His	Glu	Gly	Asp	Tyr	Leu	Glu	Ser	Ile
275		280					285								
Val	Phe	Ile	Tyr	Ser	Met	Pro	Gly	Tyr	Thr	Cys	Ser	Ile	Arg	Glu	Arg

## 4158

290                                      295                                      300  
 Met Leu Tyr Ser Ser Cys Lys Ser Arg Leu Leu Glu Ile Val Glu Arg  
 305                                      310                                      315                                      320  
 Gln Leu Gln Met Asp Val Ile Arg Lys Ile Glu Ile Asp Asn Gly Asp  
    325                                      330                                      335  
 Glu Leu Thr Ala Asp Phe Leu Tyr Glu Glu Val His Pro Lys Gln His  
    340                                      345                                      350  
 Ala His Lys Gln Ser Phe Ala Lys Pro Lys Gly Pro Ala Gly Lys Arg  
    355                                      360                                      365  
 Gly Ile Arg Arg Leu Ile Arg Gly Pro Ala Glu Thr Glu Ala Thr Thr  
    370                                      375                                      380  
 Asp  
 385

&lt;210&gt; 4589

&lt;211&gt; 270

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4589

Ser Val Thr Leu Glu Met Glu Ser Lys Leu Ala Ala Glu Lys Lys Gln  
   1                                      5                                      10                                      15  
 Thr Glu Gln Leu Ser Leu Glu Leu Glu Val Ala Arg Leu Gln Leu Gln  
    20                                      25                                      30  
 Gly Leu Asp Leu Ser Ser Arg Ser Leu Leu Gly Ile Xaa Thr Glu Asp  
    35                                      40                                      45  
 Ala Ile Gln Gly Arg Asn Glu Ser Cys Asp Ile Ser Lys Glu His Thr  
    50                                      55                                      60  
 Ser Glu Thr Thr Glu Arg Thr Pro Lys His Asp Val His Gln Ile Cys  
   65                                      70                                      75                                      80  
 Asp Lys Asp Ala Gln Gln Asp Leu Asn Leu Asp Ile Glu Lys Ile Thr  
    85                                      90                                      95

## 4159

Glu Thr Gly Ala Val Lys Pro Thr Gly Glu Cys Ser Gly Glu Gln Ser  
 100 105 110

Pro Asp Thr Asn Tyr Glu Pro Pro Gly Glu Asp Lys Thr Gln Gly Ser  
 115 120 125

Ser Glu Cys Ile Ser Glu Leu Ser Phe Ser Gly Pro Asn Ala Leu Val  
 130 135 140

Pro Met Asp Phe Leu Gly Asn Gln Glu Asn Ile Gln Asn Leu Gln Leu  
 145 150 155 160

Arg Val Lys Glu Thr Ser Asn Glu Asn Leu Arg Leu Leu His Val Ile  
 165 170 175

Glu Asp Arg Asp Arg Lys Val Glu Ser Leu Leu Asn Glu Met Lys Glu  
 180 185 190

Leu Asp Ser Lys Leu His Leu Gln Glu Val Gln Leu Met Thr Lys Ile  
 195 200 205

Glu Ala Cys Ile Glu Leu Glu Lys Ile Val Gly Glu Leu Lys Lys Glu  
 210 215 220

Asn Ser Asp Leu Ser Glu Lys Leu Glu Tyr Phe Ser Cys Asp His Gln  
 225 230 235 240

Glu Leu Leu Gln Arg Val Glu Thr Ser Glu Gly Leu Asn Ser Asp Leu  
 245 250 255

Glu Met His Ala Asp Lys Ser Ser Arg Glu Asp Ile Gly Arg  
 260 265 270

<210> 4590

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4590

Ser Ser Val Pro Pro Lys Lys Lys Leu Ala Glu Lys Asp Xaa Lys Lys  
 1 5 10 15

Leu Phe Gly Val Cys Ser Cys Ala Val His Phe Phe Arg Phe Asn Val  
 20 25 30



## 4160

Leu Cys Arg  
35

<210> 4591  
<211> 173  
<212> PRT  
<213> Homo sapiens

<400> 4591  
Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile  
1 5 10 15  
Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly  
20 25 30  
Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala  
35 40 45  
Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val  
50 55 60  
Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly  
65 70 75 80  
Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala  
85 90 95  
Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu  
100 105 110  
Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser  
115 120 125  
Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys  
130 135 140  
Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu  
145 150 155 160  
Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn  
165 170

<210> 4592  
<211> 66  
<212> PRT  
<213> Homo sapiens

## 4161

&lt;400&gt; 4592

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala  
 1 5 10 15  
 Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg  
 20 25 30  
 Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly  
 35 40 45  
 Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys  
 50 55 60  
 Arg Leu  
 65

&lt;210&gt; 4593

&lt;211&gt; 319

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4593

Glu Thr Met Ala Lys Asn Pro Pro Glu Asn Cys Glu Asp Cys His Ile  
 1 5 10 15  
 Leu Asn Ala Glu Ala Phe Lys Ser Lys Lys Ile Cys Lys Ser Leu Lys  
 20 25 30  
 Ile Cys Gly Leu Val Phe Gly Ile Leu Ala Leu Thr Leu Ile Val Leu  
 35 40 45  
 Phe Trp Gly Ser Lys His Phe Trp Pro Glu Val Pro Lys Lys Ala Tyr  
 50 55 60  
 Asp Met Glu His Thr Phe Tyr Ser Asn Gly Glu Lys Lys Lys Ile Tyr  
 65 70 75 80  
 Met Glu Ile Asp Pro Val Thr Arg Thr Glu Ile Phe Arg Ser Gly Asn  
 85 90 95  
 Gly Thr Asp Glu Thr Leu Glu Val His Asp Phe Lys Asn Gly Tyr Thr  
 100 105 110  
 Gly Ile Tyr Phe Val Gly Leu Gln Lys Cys Phe Ile Lys Thr Gln Ile  
 115 120 125  
 Lys Val Ile Pro Glu Phe Ser Glu Pro Glu Glu Glu Ile Asp Glu Asn  
 130 135 140

## 4162

Glu Glu Ile Thr Thr Thr Phe Phe Glu Gln Ser Val Ile Trp Val Pro  
 145 150 155 160

Ala Glu Lys Pro Ile Glu Asn Arg Asp Phe Leu Lys Asn Ser Lys Ile  
 165 170 175

Leu Glu Ile Cys Asp Asn Val Thr Met Tyr Trp Ile Asn Pro Thr Leu  
 180 185 190

Ile Ser Val Ser Glu Leu Gln Asp Phe Glu Glu Glu Gly Glu Asp Leu  
 195 200 205

His Phe Pro Ala Asn Glu Lys Lys Gly Ile Glu Gln Asn Glu Gln Trp  
 210 215 220

Val Val Pro Gln Val Lys Val Glu Lys Thr Arg His Ala Arg Gln Ala  
 225 230 235 240

Ser Glu Glu Glu Leu Pro Ile Asn Asp Tyr Thr Glu Asn Gly Ile Glu  
 245 250 255

Phe Asp Pro Met Leu Asp Glu Arg Gly Tyr Cys Cys Ile Tyr Cys Arg  
 260 265 270

Arg Gly Asn Arg Tyr Cys Arg Arg Val Cys Glu Pro Leu Leu Gly Tyr  
 275 280 285

Tyr Pro Tyr Pro Tyr Cys Tyr Gln Gly Gly Arg Val Ile Cys Arg Val  
 290 295 300

Ile Met Pro Cys Asn Trp Trp Val Ala Arg Met Leu Gly Arg Val  
 305 310 315

<210> 4594

<211> 86

<212> PRT

<213> Homo sapiens

<400> 4594

Tyr Cys Phe Ala Phe Ser Ile Glu Thr Glu Asn Phe Ala Ser Gln Ser  
 1 5 10 15

Leu Leu Phe Pro Trp Tyr Cys Lys Lys Lys Lys Lys Glu Lys Glu Lys  
 20 25 30

Lys Lys Glu Asn Gln Pro Ile Ile Ala Cys Thr Glu Leu Lys Ile Val  
 35 40 45

## 4163

Ile Asn Arg Ala Cys Trp Glu Lys Lys Glu Asn Asn Cys Cys Leu Phe  
 50 55 60

Phe Leu Tyr Lys Arg Glu Phe Met Thr Lys Phe Ser Cys Glu Glu Cys  
 65 70 75 80

Asp Thr Cys Leu Tyr Phe  
 85

<210> 4595  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 4595  
 Phe Pro Leu Val Leu Val Ser His Gln Arg Thr Val Met Tyr Ala Ser  
 1 5 10 15

Phe Val Thr Glu Lys Phe Leu Cys Phe Gln Ser Thr Met Arg Cys Met  
 20 25 30

Ile Leu Phe Ser Ser His Phe Pro Gln Ala Pro Val Asn Gln Gly Lys  
 35 40 45

Cys Ala Thr Asp Arg Leu Gly Glu Gly Leu Val Val Ala Gln Leu Glu  
 50 55 60

Ile Val Ser Lys Ser Lys Pro Pro Ala His Pro Glu Glu Ser Leu Leu  
 65 70 75 80

Trp Asn Val Lys Cys Asn His Phe Phe Arg Tyr Lys Thr Phe Pro Asn  
 85 90 95

Asn Val Ile Gly Phe Leu Tyr Gly Lys Ile Glu Arg Ser Cys His Pro  
 100 105 110

Pro Ala Tyr Ala Phe Ile Ser Phe Val Asp Leu Ser Asp His Leu Leu  
 115 120 125

Phe Ala Gln Ser Leu Leu Asn Ser Lys Thr Val Pro Met Asn Gly Thr  
 130 135 140

Pro Val Met  
 145

<210> 4596  
 <211> 59

## 4164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4596

Thr	Pro	Xaa	Gln	Phe	Gly	Gly	Tyr	Ala	Lys	Glu	Ala	Asp	Tyr	Val	Ala
1				5					10					15	

Gln	Ala	Thr	Arg	Leu	Arg	Ala	Ala	Leu	Glu	Gly	Thr	Ala	Thr	Tyr	Arg
			20					25					30		

Gly	Asp	Ile	Tyr	Phe	Cys	Thr	Gly	Tyr	Asp	Pro	Pro	Met	Lys	Pro	Tyr
		35					40					45			

Gly	Arg	Arg	Asn	Glu	Ile	Trp	Leu	Leu	Lys	Thr
	50					55				

&lt;210&gt; 4597

&lt;211&gt; 358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (352)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4597

Phe	Ala	Val	Ile	Arg	Phe	Glu	Ser	Ile	Ile	His	Glu	Phe	Asp	Pro	Trp
1				5					10					15	

Phe	Asn	Tyr	Arg	Ser	Thr	His	His	Leu	Ala	Ser	His	Gly	Phe	Tyr	Glu
			20					25					30		

Phe	Leu	Asn	Trp	Phe	Asp	Glu	Arg	Ala	Trp	Tyr	Pro	Leu	Gly	Arg	Ile
		35					40					45			

Val	Gly	Gly	Thr	Val	Tyr	Pro	Gly	Leu	Met	Ile	Thr	Ala	Gly	Leu	Ile
	50						55				60				

His	Trp	Ile	Leu	Asn	Thr	Leu	Asn	Ile	Thr	Val	His	Ile	Arg	Asp	Val
	65				70					75					80

Cys	Val	Phe	Leu	Ala	Pro	Thr	Phe	Ser	Gly	Leu	Thr	Ser	Ile	Ser	Thr
				85					90					95	

## 4165

Phe Leu Leu Thr Arg Glu Leu Trp Asn Gln Gly Ala Gly Leu Leu Ala  
 100 105 110

Ala Cys Phe Ile Ala Ile Val Pro Gly Tyr Ile Ser Arg Ser Val Ala  
 115 120 125

Gly Ser Phe Asp Asn Glu Gly Ile Ala Ile Phe Ala Leu Gln Phe Thr  
 130 135 140

Tyr Tyr Leu Trp Val Lys Ser Val Lys Thr Gly Ser Val Phe Trp Thr  
 145 150 155 160

Met Cys Cys Cys Leu Ser Tyr Phe Tyr Met Val Ser Ala Trp Gly Gly  
 165 170 175

Tyr Val Phe Ile Ile Asn Leu Ile Pro Leu His Val Phe Val Leu Leu  
 180 185 190

Leu Met Gln Arg Tyr Ser Lys Arg Val Tyr Ile Ala Tyr Ser Thr Phe  
 195 200 205

Tyr Ile Val Gly Leu Ile Leu Ser Met Gln Ile Pro Phe Val Gly Phe  
 210 215 220

Gln Pro Ile Arg Thr Ser Glu His Met Ala Ala Ala Gly Val Phe Ala  
 225 230 235 240

Leu Leu Gln Ala Tyr Ala Phe Leu Gln Tyr Leu Arg Asp Arg Leu Thr  
 245 250 255

Lys Gln Glu Phe Gln Thr Leu Phe Phe Leu Gly Val Ser Leu Ala Ala  
 260 265 270

Gly Ala Val Phe Leu Ser Val Ile Tyr Leu Thr Tyr Thr Gly Tyr Ile  
 275 280 285

Ala Pro Trp Ser Gly Arg Phe Tyr Ser Leu Trp Asp Thr Gly Tyr Ala  
 290 295 300

Lys Ile His Ile Pro Ile Ile Ala Ser Val Ser Glu His Gln Pro Thr  
 305 310 315 320

Thr Trp Val Ser Phe Phe Phe Asp Leu His Ile Leu Val Cys Thr Phe  
 325 330 335

Pro Ala Gly Leu Trp Phe Cys Ile Lys Asn Ile Asn Asp Glu Arg Xaa  
 340 345 350

Phe Gly Lys Arg Gly Phe  
 355

4166

&lt;210&gt; 4598

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4598

Ile	Ser	Glu	Xaa	Ser	Phe	Phe	Gln	Asn	Met	Leu	Asn	Leu	Tyr	Asn	Phe
1				5					10					15	

Ser	Ala	Lys	Val	Met	Ala	Asp	Gln	Leu	Arg	Lys	Pro	Pro	Ser	Arg	Asp
			20					25					30		

Gln	Trp	Ser	Met	Thr	Pro	Gln	Thr	Val	Asn	Ala	Tyr	Tyr	Leu	Pro	Thr
		35					40					45			

Lys	Asn	Glu	Ile	Val	Phe	Pro	Ala	Gly	Ile	Leu	Gln	Ala	Pro	Phe	Tyr
	50					55					60				

Ala	Arg	Asn	His	Pro	Lys	Ala	Leu	Asn	Phe	Gly	Gly	Ile	Gly	Val	Val
65					70					75				80	

Met	Gly	His	Glu	Leu	Thr	Xaa	Ala	Phe	Asp	Asp	Gln	Gly	Arg	Glu	Tyr
				85					90					95	

Asp	Lys	Glu	Gly	Asn	Leu	Arg	Pro	Trp	Trp	Gln	Asn	Glu	Ser	Leu	Ala
			100					105					110		

Ala	Phe	Arg	Asn	His	Thr	Ala	Cys	Met	Glu	Glu	Gln	Tyr	Asn	Gln	Tyr
		115					120					125			

Gln	Val	Asn	Gly	Glu	Arg	Leu	Asn	Gly	Arg	Gln	Thr	Leu	Gly	Glu	Asn
	130					135					140				

Ile	Ala	Asp	Asn	Gly	Gly	Leu	Lys	Leu	Pro	Thr	Met	Leu	Thr	Lys	His
145					150					155				160	

Gly

## 4167

&lt;210&gt; 4599

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4599

Ala Gln Val Val Val Leu Val Met Ser Leu Thr Thr Leu Trp Thr Leu  
1 5 10 15

Asp Lys Leu Leu Leu Cys Val Cys Xaa Leu Ile Cys Lys Met Lys Ile  
20 25 30

Ile Ser Val Ser Tyr Arg Tyr Ser Leu Asn Arg Asp Asn Tyr Thr Tyr  
35 40 45

Phe Lys Val Val Lys Tyr Thr Ile Thr Thr Arg  
50 55

&lt;210&gt; 4600

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4600

Asp Gln Pro Gly Gln His Ser Lys Thr Pro Ser Leu Gln Lys Asn Leu  
1 5 10 15

Lys Ile Ser Gln Val Trp Trp His Ala Pro Val Val Pro Ala Thr Arg  
20 25 30

Asp Ala Glu Val Arg Gly Ser Leu Glu Pro Gly Arg  
35 40

&lt;210&gt; 4601

&lt;211&gt; 397

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;



## 4168

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (392)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (395)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (396)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4601

Ser	His	Gly	Pro	Ala	Ala	Gly	Pro	Arg	Ser	Ala	Leu	Gln	His	Asn	Lys
1				5				10						15	

Met	Ala	Asn	Gln	Val	Asn	Gly	Asn	Ala	Val	Gln	Leu	Lys	Glu	Glu	Glu
		20					25					30			

Glu	Pro	Met	Asp	Thr	Ser	Ser	Val	Thr	His	Thr	Glu	His	Tyr	Lys	Thr
		35					40					45			

Leu	Ile	Glu	Ala	Gly	Leu	Pro	Gln	Lys	Val	Ala	Glu	Arg	Leu	Asp	Glu
50						55					60				

Ile	Phe	Gln	Thr	Gly	Leu	Val	Ala	Tyr	Val	Asp	Leu	Asp	Glu	Arg	Ala
65					70					75					80

Ile	Asp	Ala	Leu	Arg	Glu	Phe	Asn	Glu	Glu	Gly	Ala	Leu	Ser	Val	Leu
			85						90					95	

Gln	Gln	Phe	Lys	Glu	Ser	Asp	Leu	Ser	His	Val	Gln	Asn	Lys	Ser	Ala
			100					105					110		

Phe	Leu	Cys	Gly	Val	Met	Lys	Thr	Tyr	Arg	Gln	Arg	Glu	Lys	Gln	Gly
		115					120					125			

Ser	Lys	Val	Gln	Glu	Ser	Thr	Lys	Gly	Pro	Asp	Glu	Ala	Lys	Ile	Lys
	130					135					140				

Ala	Leu	Leu	Glu	Arg	Thr	Gly	Tyr	Thr	Leu	Asp	Val	Thr	Thr	Gly	Gln
145					150					155					160

Arg	Lys	Tyr	Gly	Gly	Pro	Pro	Pro	Asp	Ser	Val	Tyr	Ser	Gly	Val	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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<210> 4602
<211> 355
<212> PRT
<213> Homo sapiens
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## 4170

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (66)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (131)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (253)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4602  
 Lys Xaa His Leu Leu Tyr Arg Pro Leu Glu Gln Gln His Gly Val Ile  
 1 5 10 15  
 Pro Asp Arg Asp Ala Glu Phe Cys Leu Phe Asp Arg Val Val Asn Val  
 20 25 30  
 Arg Glu Asn Phe Ser Val Pro Val Gly Leu Arg Gly Thr Ile Ile Gly  
 35 40 45  
 Ile Lys Gly Ala Asn Arg Glu Ala Asp Val Leu Phe Glu Val Leu Phe  
 50 55 60  
 Asp Xaa Glu Phe Pro Gly Gly Leu Thr Ile Arg Cys Ser Pro Gly Arg  
 65 70 75 80  
 Gly Tyr Arg Leu Pro Thr Ser Ala Leu Val Asn Leu Ser His Gly Ser  
 85 90 95  
 Arg Ser Glu Thr Gly Asn Gln Lys Leu Thr Ala Ile Val Lys Pro Gln  
 100 105 110  
 Pro Ala Val His Gln His Ser Ser Ser Ser Val Ser Ser Gly His  
 115 120 125  
 Leu Gly Xaa Leu Asn His Ser Pro Gln Ser Leu Phe Val Pro Thr Gln  
 130 135 140  
 Val Pro Thr Lys Asp Asp Asp Glu Phe Cys Asn Ile Trp Gln Ser Leu  
 145 150 155 160

Gln	Gly	Ser	Gly	Lys	Met	Gln	Tyr	Phe	Glu	Pro	Thr	Ile	Gln	Glu	Lys	
				165							170			175		
Gly	Ala	Val	Leu	Pro	Gln	Glu	Ile	Ser	Gln	Val	Asn	Gln	His	His	Lys	
				180							185			190		
Ser	Gly	Phe	Asn	Asp	Asn	Ser	Val	Lys	Tyr	Gln	Gln	Arg	Lys	His	Asp	
				195							200			205		
Pro	His	Arg	Lys	Phe	Lys	Glu	Glu	Cys	Lys	Ser	Pro	Lys	Ala	Glu	Cys	
				210							215			220		
Trp	Ser	Gln	Lys	Met	Ser	Asn	Lys	Gln	Pro	Asn	Ser	Gly	Ile	Glu	Asn	
225				230							235			240		
Phe	Leu	Ala	Ser	Leu	Asn	Ile	Ser	Lys	Glu	Asn	Glu	Xaa	Gln	Ser	Ser	
				245							250			255		
His	His	Gly	Glu	Pro	Pro	Ser	Glu	Glu	His	Leu	Ser	Pro	Gln	Ser	Phe	
				260							265			270		
Ala	Met	Lys	Gly	Thr	Arg	Met	Leu	Lys	Glu	Ile	Leu	Lys	Ile	Asp	Gly	
				275							280			285		
Ser	Asn	Thr	Val	Asp	His	Lys	Asn	Glu	Ile	Lys	Gln	Ile	Ala	Asn	Glu	
290				295							300					
Ile	Pro	Val	Ser	Ser	Asn	Arg	Arg	Asp	Glu	Tyr	Gly	Leu	Pro	Ser	Gln	
305				310							315			320		
Pro	Lys	Gln	Asn	Lys	Lys	Leu	Ala	Ser	Tyr	Met	Asn	Lys	Pro	His	Ser	
				325							330			335		
Ala	Asn	Glu	Tyr	His	Asn	Val	Gln	Ser	Met	Asp	Asn	Met	Cys	Trp	Pro	
				340							345			350		
Ala	Pro	Ser														
355																

<223> Xaa equals any of the naturally occurring L-amino acids

## 4172

&lt;400&gt; 4603

His Arg Arg Tyr Ser Val Ala Ser Gln Val Pro Ser Gly Cys Thr Leu  
 1 5 10 15  
 Glu Asp His Thr Arg Phe Leu Phe Gly Cys Gln Arg Pro Pro His Pro  
 20 25 30  
 Pro Leu Ser Trp Glu Lys Asp Gly Gly Xaa Val Arg Gln Asp Leu Ala  
 35 40 45  
 Gln Leu Met Asn Ser Ser Gly Ser His Lys Asp Leu Ala Gly Lys Tyr  
 50 55 60  
 Arg Gln Ile Leu Glu Lys Ala Ile Gln Leu Ser Gly Ala Glu Gln Leu  
 65 70 75 80  
 Glu Ala Leu Lys Ala Phe Val Glu Ala Met Val Asn Glu Asn Val Ser  
 85 90 95  
 Leu Val Ile Ser Arg Gln Leu Leu Thr Asp Phe Cys Thr His Leu Pro  
 100 105 110  
 Asn Leu Pro Asp Ser Thr Ala Lys Glu Ile Tyr His Phe Thr Leu Glu  
 115 120 125  
 Lys Ile Gln Pro Arg Val Ile Ser Phe Glu Glu Gln Val Ala Ser Ile  
 130 135 140  
 Arg Gln His Leu Ala Ser Ile Tyr Glu Lys Glu Glu Asp Trp Arg Asn  
 145 150 155 160  
 Ala Ala Gln Val Leu Val Gly Ile Pro Leu Glu Thr Gly Gln Lys Gln  
 165 170 175  
 Tyr Asn Val Asp Tyr Lys Leu Glu Thr Tyr Leu Lys Ile Ala Arg Leu  
 180 185 190  
 Tyr Leu Glu Asp Asp Asp Pro Val Gln Ala Glu Ala Tyr Ile Asn Arg  
 195 200 205  
 Ala Ser Leu Leu Gln Asn Glu Ser Thr Asn Glu Gln Leu Gln Ile His  
 210 215 220  
 Tyr Lys Val Cys Tyr Ala Arg Val Leu Asp Tyr Arg Arg Lys Phe Ile  
 225 230 235 240  
 Glu Ala Ala Gln Arg Tyr Asn Glu Leu Ser Tyr Lys Thr Ile Val His  
 245 250 255  
 Glu Ser Glu Arg Leu Glu Ala Leu Lys His Ala Leu His Cys Thr Ile  
 260 265 270

## 4173

Leu Ala Ser Ala Gly Gln Gln Arg Ser Arg Met Leu Ala Thr Leu Phe  
 275 280 285

Lys Asp Glu Arg Cys Gln Gln Leu Ala Ala Tyr Gly Ile Leu Glu Lys  
 290 295 300

Met Tyr Leu Asp Arg Ile Ile Arg Gly Asn Gln Leu Gln Glu Phe Ala  
 305 310 315 320

Ala Met Leu Met Pro His Gln Lys Ala Thr Thr Ala Asp Gly Ser Ser  
 325 330 335

Ile Leu Asp Arg Ala Val Ile Glu His Asn Leu Leu Ser Ala Ser Lys  
 340 345 350

Leu Tyr Asn Asn Ile Thr Phe Glu Glu Leu Gly Ala Leu Leu Glu Ile  
 355 360 365

Pro Ala Ala Lys Ala Glu Lys Ile Ala Ser Gln Met Ile Thr Glu Asp  
 370 375 380

Val  
 385

<210> 4604  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 4604

Ala His Gly Gln Ile Glu Gly Lys Ala Leu Thr His Asp His Thr Ala  
 1 5 10 15

Glu Lys Trp Gln Arg Gln Asp Leu Asn Leu Glu Pro Leu Ala Pro His  
 20 25 30

Thr Ser Asn Leu Asn His Ser Pro Tyr Asn Thr Thr Tyr Val Val Lys  
 35 40 45

Met Cys Gly Gly His Ala Ile Asn Val Gly Pro Phe Thr Val Ala Gly  
 50 55 60

Arg Gly Arg Asn Leu Gln Phe Leu Arg Val Leu Leu Leu Arg Cys Pro  
 65 70 75 80

Pro Val Leu Gly His Ser Cys Ser Leu Pro Cys Pro Ala Trp Ser His  
 85 90 95

## 4174

Pro Pro Ser Ala Asn Arg Ser Leu Gly Arg Val Leu Trp Ala Leu Ile  
                   100                  105                  110

Arg Pro Trp Gln Gly Arg Ser Ser  
           115                  120

<210> 4605

<211> 390

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4605

Thr Ser Val Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu  
   1                  5                  10                  15

Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser  
           20                  25                  30

Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe  
           35                  40                  45

Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu  
       50                  55                  60

Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu  
   65                  70                  75                  80

Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile  
                   85                  90                  95

Glu Cys Leu His Ser Phe Cys Lys Thr Cys Ile Val Arg Tyr Leu Glu  
           100                  105                  110

Thr Ser Lys Tyr Cys Pro Ile Cys Asp Val Gln Val His Lys Thr Arg  
           115                  120                  125

Pro Leu Leu Asn Ile Arg Ser Asp Lys Thr Leu Gln Asp Ile Val Tyr  
       130                  135                  140

Lys Leu Val Pro Gly Leu Phe Lys Asn Glu Met Lys Arg Arg Arg Asp  
   145                  150                  155                  160

Phe Tyr Ala Ala His Pro Ser Ala Asp Ala Ala Asn Gly Ser Asn Glu  
                   165                  170                  175

## 4175

Asp Arg Gly Glu Val Ala Asp Glu Asp Lys Arg Ile Ile Thr Asp Asp  
 180 185 190  
 Glu Ile Ile Ser Leu Ser Ile Glu Phe Phe Asp Gln Asn Arg Leu Asp  
 195 200 205  
 Arg Lys Val Asn Lys Asp Lys Glu Lys Ser Lys Glu Glu Val Asn Asp  
 210 215 220  
 Lys Arg Tyr Leu Arg Cys Pro Ala Ala Met Thr Val Met His Leu Arg  
 225 230 235 240  
 Lys Phe Leu Arg Ser Lys Met Asp Ile Pro Asn Thr Phe Gln Ile Asp  
 245 250 255  
 Val Met Tyr Glu Glu Glu Pro Leu Lys Asp Tyr Tyr Thr Leu Met Asp  
 260 265 270  
 Ile Ala Tyr Ile Tyr Thr Trp Arg Arg Asn Gly Pro Leu Pro Leu Lys  
 275 280 285  
 Tyr Arg Val Arg Pro Thr Cys Lys Arg Met Lys Ile Ser His Gln Arg  
 290 295 300  
 Asp Gly Leu Thr Asn Ala Gly Glu Leu Glu Ser Asp Ser Gly Ser Asp  
 305 310 315 320  
 Lys Ala Asn Ser Pro Ala Gly Gly Ile Pro Ser Thr Ser Ser Cys Leu  
 325 330 335  
 Pro Ser Pro Ser Thr Pro Val Gln Ser Pro His Pro Gln Phe Pro His  
 340 345 350  
 Ile Ser Ser Thr Met Asn Gly Thr Ser Asn Ser Pro Ser Gly Asn His  
 355 360 365  
 Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser  
 370 375 380  
 Ser Ala Thr Ser Ser Gly  
 385 390

&lt;210&gt; 4606

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4606



## 4176

Leu Thr Gly Leu Ser Ile Ser Ser Thr Pro Pro Ala Val Ser Ser Val  
 1 5 10 15  
 Leu Ser Thr Gly Val Pro Thr Val Pro Leu Leu Pro Pro Gln Val Asn  
 20 25 30  
 Gln Ser Leu Thr Ser Val Pro Pro Met Asn Pro Ala Thr Thr Leu Pro  
 35 40 45  
 Gly Leu Met Pro Leu Pro Ala Gly Leu Pro Asn Leu Pro Asn Leu Asn  
 50 55 60  
 Leu Asn Leu Pro Ala Pro His Ile Met Pro Gly Val Gly Leu Pro Glu  
 65 70 75 80  
 Leu Val Asn Pro Gly Leu Pro Pro Leu Pro Ser Met Pro Pro Arg Asn  
 85 90 95  
 Leu Pro Gly Ile Ala Pro Leu Pro Leu Pro Ser Glu Phe Leu Pro Ser  
 100 105 110  
 Phe Pro Leu Val Pro Glu Ser Ser Ser Ala Ala Ser Ser Gly Glu Leu  
 115 120 125  
 Leu Ser Ser Leu Pro Pro Thr Ser Asn Ala Pro Ser Asp Pro Ala Thr  
 130 135 140  
 Thr Thr Ala Lys Ala Asp Ala Ala Ser Ser Leu Thr Val Asp Val Thr  
 145 150 155 160  
 Pro Pro Thr Ala Lys Ala Pro Thr Thr Val Glu Asp Arg Val Gly Asp  
 165 170 175  
 Ser Thr Pro Val Ser Glu Lys Pro Val Ser Ala Ala Val Asp Ala Asn  
 180 185 190  
 Ala Ser Glu Ser Pro  
 195

&lt;210&gt; 4607

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4607

Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe  
 1 5 10 15  
 Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro

## 4177

	20		25		30										
Ser	Pro	Gln	Ser	Gln	Cys	Leu	Cys	Phe	Leu	Phe	Tyr	Phe	Cys	Ser	Ile
	35					40						45			
Arg	Phe	Leu	Leu	Leu	Leu	Cys	Leu	Lys	Ser	Ser	Leu	Gly	Ser	Tyr	Gln
	50					55					60				
Gly	Phe	Ser	Phe	Cys	Val	Ala	Phe	Ala	Ala	Trp	Ile	Lys	His	Trp	Leu
65					70					75					80
Thr	Val	Leu	Met	Cys	Glu	Glu	Lys	Lys	Phe	Ser	Lys	Ala	Gly	Glu	Leu
				85					90					95	

&lt;210&gt; 4608

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4608

Pro	Cys	Ala	Trp	Arg	Ala	Ala	Arg	Gly	Gly	Pro	Cys	Ala	Ala	Pro	Leu
1				5					10					15	

Gly	Leu	Arg	Glu	Arg	Gly	Arg	Val	Ser	Xaa	Arg	Leu	Leu	Gly	Pro	Ala
		20						25					30		

Ala	Ala	Arg	Ala	Leu	Leu	Leu	Gly	Leu	Pro	Gly	Arg	Thr	Leu	Glu	Ala
		35					40					45			

Ala	Ser	Gly	Arg	Ser	Trp	Leu	Ala	Ala	Ala	Arg	Asp	Arg	Pro	Ala	Glu
	50					55					60				

## 4178

Pro Leu Phe Gly Arg Gly Glu Gly Gly Ser Gln Ala Ser Gly Xaa Ala  
 65 70 75 80  
 Gly Ala Ala Ala Glu Ala Pro Gly Xaa Gln Trp Gly Pro Ala Ser Thr  
 85 90 95  
 Pro Ser Leu Tyr Glu Asn Pro Trp Thr Ile Pro Asn Met Leu Ser Met  
 100 105 110  
 Thr Arg Ile Gly Leu Ala Pro Val Leu Gly Tyr Leu Ile Ile Glu Glu  
 115 120 125  
 Asp Phe Asn Ile Ala Leu Gly Val Phe Ala Leu Ala Gly Leu Thr Asp  
 130 135 140  
 Leu Leu Asp Gly Phe Ile Ala Arg Asn Trp Ala Asn Gln Arg Ser Ala  
 145 150 155 160  
 Leu Gly Ser Ala Leu Asp Pro Leu Ala Asp Lys Ile Leu Ile Ser Ile  
 165 170 175  
 Leu Tyr Val Ser Leu Thr Tyr Ala Asp Leu Ile Pro Val Pro Leu Thr  
 180 185 190  
 Tyr Met Ile Ile Ser Arg Asp Val Met Leu Ile Ala Ala Val Phe Tyr  
 195 200 205  
 Val Arg Tyr Arg Thr Leu Pro Thr Pro Arg Thr Leu Ala Lys Tyr Phe  
 210 215 220  
 Asn Pro Cys Tyr Ala Thr Ala Arg Leu Lys Pro Thr Phe Ile Ser Lys  
 225 230 235 240  
 Val Asn Thr Ala Val Gln Leu Ile Leu Val Ala Ala Ser Leu Ala Ala  
 245 250 255  
 Pro Val Phe Asn Tyr Ala Asp Ser Ile Tyr Leu Gln Ile Leu Trp Cys  
 260 265 270  
 Phe Thr Ala Phe Thr Thr Ala Ala Ser Ala Tyr Ser Tyr Tyr His Tyr  
 275 280 285  
 Gly Arg Lys Thr Val Gln Val Ile Lys Asp  
 290 295

&lt;210&gt; 4609

&lt;211&gt; 279

&lt;212&gt; PRT

## 4179

&lt;213&gt; Homo sapiens

&lt;400&gt; 4609

Glu Gly Pro Ala Glu Gly Asn Met Ala Ala Lys Val Phe Glu Ser Ile  
 1 5 10 15

Gly Lys Phe Gly Leu Ala Leu Ala Val Ala Gly Gly Val Val Asn Ser  
 20 25 30

Ala Leu Tyr Asn Val Asp Ala Gly His Arg Ala Val Ile Phe Asp Arg  
 35 40 45

Phe Arg Gly Val Gln Asp Ile Val Val Gly Glu Gly Thr His Phe Leu  
 50 55 60

Ile Pro Trp Val Gln Lys Pro Ile Ile Phe Asp Cys Arg Ser Arg Pro  
 65 70 75 80

Arg Asn Val Pro Val Ile Thr Gly Ser Lys Asp Leu Gln Asn Val Asn  
 85 90 95

Ile Thr Leu Arg Ile Leu Phe Arg Pro Val Ala Ser Gln Leu Pro Arg  
 100 105 110

Ile Phe Thr Ser Ile Gly Glu Asp Tyr Asp Glu Arg Val Leu Pro Ser  
 115 120 125

Ile Thr Thr Glu Ile Leu Lys Ser Val Val Ala Arg Phe Asp Ala Gly  
 130 135 140

Glu Leu Ile Thr Gln Arg Glu Leu Val Ser Arg Gln Val Ser Asp Asp  
 145 150 155 160

Leu Thr Glu Arg Ala Ala Thr Phe Gly Leu Ile Leu Asp Asp Val Ser  
 165 170 175

Leu Thr His Leu Thr Phe Gly Lys Glu Phe Thr Glu Ala Val Glu Ala  
 180 185 190

Lys Gln Val Ala Gln Gln Glu Ala Glu Arg Ala Arg Phe Val Val Glu  
 195 200 205

Lys Ala Glu Gln Gln Lys Lys Ala Ala Ile Ile Ser Ala Glu Gly Asp  
 210 215 220

Ser Lys Ala Ala Glu Leu Ile Ala Asn Ser Leu Ala Thr Ala Gly Asp  
 225 230 235 240

Gly Leu Ile Glu Leu Arg Lys Leu Glu Ala Ala Glu Asp Ile Ala Tyr  
 245 250 255

## 4180

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser  
 260 265 270

Val Leu Leu Gln Leu Pro Gln  
 275

<210> 4610

<211> 406

<212> PRT

<213> Homo sapiens

<400> 4610

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala  
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln  
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu  
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln  
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp  
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val  
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala  
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys  
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile  
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp  
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu  
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu  
 180 185 190

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val

## 4181

195                      200                      205  
 Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val  
 210                      215                      220  
 Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His  
 225                      230                      235                      240  
 Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr  
 245                      250                      255  
 Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly  
 260                      265                      270  
 Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly  
 275                      280                      285  
 Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly  
 290                      295                      300  
 Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe  
 305                      310                      315                      320  
 Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp  
 325                      330                      335  
 Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe  
 340                      345                      350  
 Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu  
 355                      360                      365  
 Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala  
 370                      375                      380  
 Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu  
 385                      390                      395                      400  
 Phe Gln Arg Trp Leu Gln  
 405

&lt;210&gt; 4611

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4611

Gly Val Val Lys Ser Leu Leu Phe Thr Arg Cys Asn Val Leu Val Pro  
 1                      5                      10                      15

## 4182

Tyr Lys Gln Gly Trp Gly Gly Glu Gly Arg Ala Lys Thr Asn Ile Glu  
                   20                  25                  30  
 Ile Leu Lys Gln Gln Gln Ser Glu Trp Ile Leu Phe Phe Val Ile Val  
           35                  40                  45  
 Gly Gly Leu Lys Asn Ser Pro His Val Ile Ile Val Asn Thr Leu Leu  
           50                  55                  60  
 Cys Gly His Cys Asn Ile Trp Gly Val Gly Gln Gly Gly Lys Val Thr  
       65                  70                  75                  80  
 Ile Val His Met Ser Leu Ala Ser Val Gln Ser Ser Val Gln Asn Val  
                   85                  90                  95  
 Met Leu Phe Cys Lys Lys Arg Phe Met Ile Phe Lys Ile Asn Leu Val  
           100                  105                  110  
 Asn Leu Phe Leu Val Val Ile Phe Phe Leu Arg Gln Ser Phe  
           115                  120                  125

&lt;210&gt; 4612

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4612

Gln Glu Leu Arg Ser Pro Ser Arg Ser Pro Ser Pro Pro Pro Lys Ser  
   1                  5                  10                  15  
 Pro Pro Trp Thr Thr Gly Gly Ser Leu Cys Glu Gln Leu Ala Phe Arg  
           20                  25                  30  
 Lys Pro Leu Ser Val Phe Lys Gln Lys Val Glu Gly Ala Thr Lys Gln  
           35                  40                  45  
 Ala Ala Val Arg Ala Ser Xaa Cys Arg Pro Leu Pro Cys Ser Ser Ser  
           50                  55                  60  
 Ser Phe Ala Ser Ala Ser Ser Val Met Phe Cys Leu Glu Phe Tyr Leu  
       65                  70                  75                  80  
 Asp Phe Phe Ser Gly Tyr Phe Ser Val Phe Gln Pro Leu Leu

## 4183

85

90

&lt;210&gt; 4613

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4613

Lys	Lys	Ser	Leu	Arg	Cys	Glu	Tyr	Arg	Ile	Asp	Ile	Glu	Arg	Leu	Tyr
1				5					10					15	

Met	Ser	Lys	Thr	His	Leu	Ser	Ser	Ser	His	Arg	Pro	Leu	Gln	Ser	Gly
			20					25					30		

His	Val	Gly	Gln	Xaa	Gly	Thr	Gly	Ala	Gly	Asp	Ala	Pro	Pro	Gly	Gln
		35					40					45			

Asn	Ala	Pro	Phe	Val	Ala	Leu	Pro	Asp	Thr	Xaa	Tyr	Leu	Leu	Xaa	Lys
		50				55					60				

Arg	Glu	Thr	Gly	Ser
65				

&lt;210&gt; 4614

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4614

Asp	Pro	Arg	Thr	Met	Asn	Leu	Ala	Ile	Ser	Ile	Ala	Leu	Leu	Leu	Thr
1				5					10					15	



## 4184

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys  
                   20                  25                  30

Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser  
           35                  40                  45

Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys  
       50                  55                  60

His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser  
   65                  70                  75                  80

Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser  
                   85                  90                  95

Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His  
           100                  105                  110

Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg  
       115                  120                  125

Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr  
       130                  135                  140

Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr  
   145                  150                  155                  160

Asp Phe Met Ser Leu  
                   165

<210> 4615

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4615

Ser Leu Cys Phe Ile Asp Gly Lys Tyr His Lys Gln Ile Lys Ile Glu  
   1                  5                  10                  15

Glu Asn Ala Thr Gly Phe Ser Tyr Glu Ser Leu Phe Arg Glu Tyr Leu  
           20                  25                  30

Asn Glu Thr Val Thr Glu Val Trp Ile Glu Asp Pro Tyr Ile Arg His  
       35                  40                  45

## 4185

Thr His Gln Gly Ile Asp Gln Val Gln Gln Ser Arg Gly Leu Gln Glu  
 50 55 60

Ile Glu Glu Ser Leu Arg Ser His Gly Ser Ala Xaa Gly Arg Ser Ile  
 65 70 75 80

Leu Phe Phe Asn Thr  
 85

<210> 4616

<211> 366

<212> PRT

<213> Homo sapiens

<400> 4616

Pro Gly Ser Thr His Ala Ser Gly Lys Ile Gln Asn Lys Trp Leu Arg  
 1 5 10 15

Pro Ser Pro Arg Ser His Arg Thr Pro Glu Ser Gly Arg Val Leu Ser  
 20 25 30

Leu Phe Arg Leu Pro Pro Pro Gly Met Ala Leu Ser Gly Ser Thr Pro  
 35 40 45

Ala Pro Cys Trp Glu Glu Asp Glu Cys Leu Asp Tyr Tyr Gly Met Leu  
 50 55 60

Ser Leu His Arg Met Phe Glu Val Val Gly Gly Gln Leu Thr Glu Cys  
 65 70 75 80

Glu Leu Glu Leu Leu Ala Phe Leu Leu Asp Glu Ala Pro Gly Ala Ala  
 85 90 95

Gly Gly Leu Ala Arg Ala Arg Ser Gly Leu Glu Leu Leu Leu Glu Leu  
 100 105 110

Glu Arg Arg Gly Gln Cys Asp Glu Ser Asn Leu Arg Leu Leu Gly Gln  
 115 120 125

Leu Leu Arg Val Leu Ala Arg His Asp Leu Leu Pro His Leu Ala Arg  
 130 135 140

Lys Arg Arg Arg Pro Val Ser Pro Glu Arg Tyr Ser Tyr Gly Thr Ser  
 145 150 155 160

Ser Ser Ser Lys Arg Thr Glu Gly Ser Cys Arg Arg Arg Arg Gln Ser  
 165 170 175

## 4186

Ser Ser Ser Ala Asn Ser Gln Gln Gly Gln Trp Glu Thr Gly Ser Pro  
 180 185 190  
 Pro Thr Lys Arg Gln Arg Arg Ser Arg Gly Arg Pro Ser Gly Gly Ala  
 195 200 205  
 Arg Arg Arg Arg Arg Gly Ala Pro Ala Ala Pro Gln Gln Gln Ser Glu  
 210 215 220  
 Pro Ala Arg Pro Ser Ser Ser Glu Gly Lys Val Thr Cys Asp Ile Arg Leu  
 225 230 235 240  
 Arg Val Arg Ala Glu Tyr Cys Glu His Gly Pro Ala Leu Glu Gln Gly  
 245 250 255  
 Val Ala Ser Arg Arg Pro Gln Ala Leu Ala Arg Gln Leu Asp Val Phe  
 260 265 270  
 Gly Gln Ala Thr Ala Val Leu Arg Ser Arg Asp Leu Gly Ser Val Val  
 275 280 285  
 Cys Asp Ile Lys Phe Ser Glu Leu Ser Tyr Leu Asp Ala Phe Trp Gly  
 290 295 300  
 Asp Tyr Leu Ser Gly Ala Leu Leu Gln Ala Leu Arg Gly Val Phe Leu  
 305 310 315 320  
 Thr Glu Ala Leu Arg Glu Ala Val Gly Arg Glu Ala Val Arg Leu Leu  
 325 330 335  
 Val Ser Val Asp Glu Ala Asp Tyr Glu Ala Gly Arg Arg Arg Leu Leu  
 340 345 350  
 Leu Met Glu Glu Glu Gly Gly Arg Arg Pro Thr Glu Ala Ser  
 355 360 365

&lt;210&gt; 4617

&lt;211&gt; 482

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4617

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr  
 1 5 10 15

Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Met Val Leu Gln  
 20 25 30

Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala His Leu Leu

## 4187

35	40	45
Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly Leu Cys Gly		
50	55	60
Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro Asn Gly Ser		
65	70	75
Ala Ala Ser Ser Val Glu Thr Phe Gly Ala Ala Trp Arg Val Pro Gly		
85	90	95
Ser Ser Lys Gly Cys Gly Glu Gly Cys Gly Pro Gln Gly Cys Pro Val		
100	105	110
Cys Leu Ala Glu Glu Thr Ala Pro Tyr Glu Ser Asn Glu Ala Cys Gly		
115	120	125
Gln Leu Arg Asn Pro Gln Gly Pro Phe Ala Thr Cys Gln Ala Val Leu		
130	135	140
Ser Pro Ser Glu Tyr Phe Arg Gln Cys Val Tyr Asp Leu Cys Ala Gln		
145	150	155
Lys Gly Asp Lys Ala Phe Leu Cys Arg Ser Leu Ala Ala Tyr Thr Ala		
165	170	175
Ala Cys Gln Ala Ala Gly Val Ala Val Lys Pro Trp Arg Thr Asp Ser		
180	185	190
Phe Cys Pro Leu His Cys Pro Ala His Ser His Tyr Ser Ile Cys Thr		
195	200	205
Arg Thr Cys Gln Gly Ser Cys Ala Ala Leu Ser Gly Leu Thr Gly Cys		
210	215	220
Thr Thr Arg Cys Phe Glu Gly Cys Glu Cys Asp Asp Arg Phe Leu Leu		
225	230	235
Ser Gln Gly Val Cys Ile Pro Val Gln Asp Cys Gly Cys Thr His Asn		
245	250	255
Gly Arg Tyr Leu Pro Val Asn Ser Ser Leu Leu Thr Ser Asp Cys Ser		
260	265	270
Glu Arg Cys Ser Cys Ser Ser Ser Ser Gly Leu Thr Cys Gln Ala Ala		
275	280	285
Gly Cys Pro Pro Gly Arg Val Cys Glu Val Lys Ala Glu Ala Arg Asn		
290	295	300
Cys Trp Ala Thr Arg Gly Leu Cys Val Leu Ser Val Gly Ala Asn Leu		

## 4188

305                      310                      315                      320  
 Thr Thr Phe Asp Gly Ala Arg Gly Ala Thr Thr Ser Pro Gly Val Tyr  
                                  325                      330                      335  
 Glu Leu Ser Ser Arg Cys Pro Gly Leu Gln Asn Thr Ile Pro Trp Tyr  
                                  340                      345                      350  
 Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr Glu Ala Val  
                                  355                      360                      365  
 Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr Leu Thr Pro  
                                  370                      375                      380  
 Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu Pro Ala Glu  
 385                                   390                      395                      400  
 Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly Ser Leu Leu  
                                  405                      410                      415  
 Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala Asn Gly Lys  
                                  420                      425                      430  
 Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu Cys Gly Ala  
                                  435                      440                      445  
 Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His Asp Ser Gln  
                                  450                      455                      460  
 Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe Ser Pro Cys  
 465                                   470                      475                      480  
 Tyr Gly

&lt;210&gt; 4618

&lt;211&gt; 552

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4618

Thr Val Gly Ser Asp Arg Asp Thr Leu Ala Lys Arg Leu Pro Ala Ala  
 1                                   5                                   10                                   15

Ala Ser Gly Gly Thr Ser Ile Cys Ser Gly Leu Arg Ser Ala Phe Thr  
                                  20                                   25                                   30

Val Ile Arg Lys Lys Tyr Pro Thr Asp Gly Ser Glu Ile Val Leu Leu  
                                  35                                   40                                   45

## 4189

Thr Asp Gly Glu Asp Asn Thr Ile Ser Gly Cys Phe Asn Glu Val Lys  
 50 55 60  
 Gln Ser Gly Ala Ile Ile His Thr Val Ala Leu Gly Pro Ser Ala Ala  
 65 70 75 80  
 Gln Glu Leu Glu Glu Leu Ser Lys Met Thr Gly Gly Leu Gln Thr Tyr  
 85 90 95  
 Ala Ser Asp Gln Val Gln Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala  
 100 105 110  
 Leu Ser Ser Gly Asn Gly Ala Val Ser Gln Arg Ser Ile Gln Leu Glu  
 115 120 125  
 Ser Lys Gly Leu Thr Leu Gln Asn Ser Gln Trp Met Asn Gly Thr Val  
 130 135 140  
 Ile Val Asp Ser Thr Val Gly Lys Asp Thr Leu Phe Leu Ile Thr Trp  
 145 150 155 160  
 Thr Thr Gln Pro Pro Gln Ile Leu Leu Trp Asp Pro Ser Gly Gln Lys  
 165 170 175  
 Gln Gly Gly Phe Val Val Asp Lys Asn Thr Lys Met Ala Tyr Leu Gln  
 180 185 190  
 Ile Pro Gly Ile Ala Lys Val Gly Thr Trp Lys Tyr Ser Leu Gln Ala  
 195 200 205  
 Ser Ser Gln Thr Leu Thr Leu Thr Val Thr Ser Arg Ala Ser Asn Ala  
 210 215 220  
 Thr Leu Pro Pro Ile Thr Val Thr Ser Lys Thr Asn Lys Asp Thr Ser  
 225 230 235 240  
 Lys Phe Pro Ser Pro Leu Val Val Tyr Ala Asn Ile Arg Gln Gly Ala  
 245 250 255  
 Ser Pro Ile Leu Arg Ala Ser Val Thr Ala Leu Ile Glu Ser Val Asn  
 260 265 270  
 Gly Lys Thr Val Thr Leu Glu Leu Leu Asp Asn Gly Ala Gly Ala Asp  
 275 280 285  
 Ala Thr Lys Asp Asp Gly Val Tyr Ser Arg Tyr Phe Thr Thr Tyr Asp  
 290 295 300  
 Thr Asn Gly Arg Tyr Ser Val Lys Val Arg Ala Leu Gly Gly Val Asn  
 305 310 315 320

## 4190

Ala Ala Arg Arg Arg Val Ile Pro Gln Gln Ser Gly Ala Leu Tyr Ile  
 325 330 335  
 Pro Gly Trp Ile Glu Asn Asp Glu Ile Gln Trp Asn Pro Pro Arg Pro  
 340 345 350  
 Glu Ile Asn Lys Asp Asp Val Gln His Lys Gln Val Cys Phe Ser Arg  
 355 360 365  
 Thr Ser Ser Gly Gly Ser Phe Val Ala Ser Asp Val Pro Asn Ala Pro  
 370 375 380  
 Ile Pro Asp Leu Phe Pro Pro Gly Gln Ile Thr Asp Leu Lys Ala Glu  
 385 390 395 400  
 Ile His Gly Gly Ser Leu Ile Asn Leu Thr Trp Thr Ala Pro Gly Asp  
 405 410 415  
 Asp Tyr Asp His Gly Thr Ala His Lys Tyr Ile Ile Arg Ile Ser Thr  
 420 425 430  
 Ser Ile Leu Asp Leu Arg Asp Lys Phe Asn Glu Ser Leu Gln Val Asn  
 435 440 445  
 Thr Thr Ala Leu Ile Pro Lys Glu Ala Asn Ser Glu Glu Val Phe Leu  
 450 455 460  
 Phe Lys Pro Glu Thr Ile Thr Phe Glu Asn Gly Thr Asp Leu Phe Ile  
 465 470 475 480  
 Ala Ile Gln Ala Val Asp Lys Val Asp Leu Lys Ser Glu Ile Ser Asn  
 485 490 495  
 Ile Ala Arg Val Ser Leu Phe Ile Pro Pro Gln Thr Pro Pro Glu Thr  
 500 505 510  
 Pro Ser Pro Asp Glu Thr Ser Ala Pro Cys Pro Asn Ile His Ile Asn  
 515 520 525  
 Ser Thr Ile Pro Gly Ile His Ile Leu Lys Ile Met Trp Lys Trp Ile  
 530 535 540  
 Gly Glu Leu Gln Leu Ser Ile Ala  
 545 550

&lt;210&gt; 4619

&lt;211&gt; 501

&lt;212&gt; PRT

## 4191

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (179)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4619

Gly Thr Ser Gly Gly Gly Ala Gly Ala Met Ala Val Leu Leu Glu Thr  
 1 5 10 15

Thr Leu Gly Asp Val Val Ile Asp Leu Tyr Thr Glu Glu Arg Pro Arg  
 20 25 30

Ala Cys Leu Asn Phe Leu Lys Leu Cys Lys Ile Lys Tyr Tyr Asn Tyr  
 35 40 45

Cys Leu Ile His Asn Val Gln Arg Asp Phe Ile Ile Gln Thr Gly Asp  
 50 55 60

Pro Thr Gly Thr Gly Arg Gly Gly Glu Ser Ile Phe Gly Gln Leu Tyr  
 65 70 75 80

Gly Asp Gln Ala Ser Phe Phe Glu Ala Glu Lys Val Pro Arg Ile Lys  
 85 90 95

His Lys Lys Lys Gly Thr Val Ser Met Val Asn Asn Gly Ser Asp Gln  
 100 105 110

His Gly Ser Gln Phe Leu Ile Thr Thr Gly Glu Asn Leu Asp Tyr Leu  
 115 120 125

Asp Gly Val His Thr Val Phe Gly Glu Val Thr Glu Gly Met Asp Ile  
 130 135 140

Ile Lys Lys Ile Asn Glu Thr Phe Val Asp Lys Asp Phe Val Pro Tyr  
 145 150 155 160

Gln Asp Ile Arg Ile Asn His Thr Val Ile Leu Asp Asp Pro Phe Asp  
 165 170 175

Asp Pro Xaa Asp Leu Leu Ile Pro Asp Arg Ser Pro Glu Pro Thr Arg  
 180 185 190

Glu Gln Leu Asp Ser Gly Arg Ile Gly Ala Asp Glu Glu Ile Asp Asp  
 195 200 205

Phe Lys Gly Arg Ser Ala Glu Glu Val Glu Glu Ile Lys Ala Glu Lys  
 210 215 220

Glu Ala Lys Thr Gln Ala Ile Leu Leu Glu Met Val Gly Asp Leu Pro



## 4192

225		230		235		240
Asp Ala Asp Ile Lys Pro Pro Glu Asn Val Leu Phe Val Cys Lys Leu						
	245		250		255	
Asn Pro Val Thr Thr Asp Glu Asp Leu Glu Ile Ile Phe Ser Arg Phe						
	260		265		270	
Gly Pro Ile Arg Ser Cys Glu Val Ile Arg Asp Trp Lys Thr Gly Glu						
	275		280		285	
Ser Leu Cys Tyr Ala Phe Ile Glu Phe Glu Lys Glu Glu Asp Cys Glu						
	290		295		300	
Lys Ala Phe Phe Lys Met Asp Asn Val Leu Ile Asp Asp Arg Arg Ile						
305		310		315		320
His Val Asp Phe Ser Gln Ser Val Ala Lys Val Lys Trp Lys Gly Lys						
	325		330		335	
Gly Gly Lys Tyr Thr Lys Ser Asp Phe Lys Glu Tyr Glu Lys Glu Gln						
	340		345		350	
Asp Lys Pro Pro Asn Leu Val Leu Lys Asp Lys Val Lys Pro Lys Gln						
	355		360		365	
Asp Thr Lys Tyr Asp Leu Ile Leu Asp Glu Gln Ala Glu Asp Ser Lys						
	370		375		380	
Ser Ser His Ser His Thr Ser Lys Lys His Lys Lys Lys Thr His His						
385		390		395		400
Cys Ser Glu Glu Lys Glu Asp Glu Asp Tyr Met Pro Ile Lys Asn Thr						
	405		410		415	
Asn Gln Asp Ile Tyr Arg Glu Met Gly Phe Gly His Tyr Glu Glu Glu						
	420		425		430	
Glu Ser Cys Trp Glu Lys Gln Lys Ser Glu Lys Arg Asp Arg Thr Gln						
	435		440		445	
Asn Arg Ser Arg Ser Arg Ser Arg Glu Arg Asp Gly His Tyr Ser Asn						
	450		455		460	
Ser His Lys Ser Lys Tyr Gln Thr Asp Leu Tyr Glu Arg Glu Arg Ser						
465		470		475		480
Lys Lys Arg Asp Arg Ser Arg Ser Pro Lys Lys Ser Lys Asp Lys Glu						
	485		490		495	
Lys Ser Lys Tyr Arg						

## 4193

500

&lt;210&gt; 4620

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4620

Asn Phe Leu Leu Phe Thr Asn Ser Asp Glu Ile Gln Phe Phe Arg Arg  
1 5 10 15

Leu Ser Phe Leu Glu Gln Ala Thr Ser Leu Pro Leu Glu Cys Pro Ile  
20 25 30

Thr Tyr Ser Ser Thr Phe Ser Phe Cys Ser Arg Cys Leu Leu Lys Arg  
35 40 45

Ser Gly Ala Val Gly Gly Tyr Ala His Leu Ser Ser Ser Val Gln  
50 55 60

&lt;210&gt; 4621

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4621

Ser Gln His Phe Gly Arg Pro Arg Trp Thr Asp His Leu Arg Ser Gly  
1 5 10 15

Val Arg Asp Gln Pro Gly Gln His Gly Gln Thr Trp Ser Leu Leu Lys  
20 25 30

Ile Gln Lys Leu Ala Gly Val Ala Arg Cys Arg Ala Val Trp Gly Arg  
35 40 45

His Gly  
50

&lt;210&gt; 4622

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4622

Gly Thr Arg Trp Pro Cys Gly Lys His Lys Arg Val Leu Ile Phe Pro

1						5						10						15
Ser	Tyr	Met	Thr	Thr	Val	Ile	Asp	Tyr	Val	Lys	Pro	Ser	Asp	Leu	Lys			
			20						25						30			
Lys	Asp	Met	Asn	Glu	Thr	Phe	Lys	Glu	Lys	Phe	Pro	His	Ile	Lys	Leu			
			35						40						45			
Thr	Leu	Ser	Lys	Ile	Arg	Ser	Leu	Lys	Arg	Glu	Met	Arg	Asn	Leu	Arg			
			50						55						60			
Arg	Arg	Thr	Val	Ala	Leu	Arg	Ser	Pro	Arg	Trp	Pro	Trp	Pro	Arg	Leu			
65						70						75		80				
Leu																		

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<400> 4623
Ser Gln His Phe Leu Ser Leu Pro Leu Trp Phe Glu Gly Tyr Gly Leu
  1             5             10             15
Leu Gln Tyr Ile Ser Ser Phe Lys Ser Cys His Cys Phe Val Gly Pro
      20             25             30
Gln Leu Ile Gly Pro Gln Asn Lys Pro Cys Cys Phe Ala His Thr Leu
      35             40             45
Ala Phe Phe Cys Thr Phe His Ser Gly Trp Ala Trp Pro Lys Gln Ala
      50             55             60
Gln Ala Lys Asp Leu Pro Ser Cys Met Tyr Phe Gln Tyr Pro Glu Thr
  65             70             75             80
Val Phe Gly Asp Ile Met Pro Arg Val Asn Lys Pro Asp Leu Gly Thr
      85             90             95
Ala Leu Ser Arg Gly Phe Thr His Glu Ile Asn Lys Thr Tyr Leu Ser
      100            105            110
His Leu Lys Leu Gly Ser Gln Lys Thr His Phe Trp Phe Ile Ile Ser
      115            120            125
Phe Tyr Ala His Leu Thr Leu Ile Ile Tyr Pro
      130            135

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## 4195

&lt;210&gt; 4624

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4624

Gly Thr Arg Arg His Pro Ala Pro Ser Ala Gly Cys Ala Ser Gly Ala  
 1 5 10 15  
 Glu Val Arg Asp Lys Met Val Pro Pro Val Gln Val Ser Pro Leu Ile  
 20 25 30  
 Lys Leu Gly Arg Tyr Ser Ala Leu Phe Leu Gly Val Ala Tyr Gly Ala  
 35 40 45  
 Thr Arg Tyr Asn Tyr Leu Lys Pro Arg Ala Glu Glu Glu Arg Arg Ile  
 50 55 60  
 Ala Ala Glu Glu Lys Lys Lys Gln Asp Glu Leu Lys Arg Ile Ala Arg  
 65 70 75 80  
 Glu Leu Ala Glu Asp Asp Ser Ile Leu Lys  
 85 90

&lt;210&gt; 4625

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4625

Gln Ala Thr Gly Gly Pro Glu Leu Ala Ser Ser Val Leu Ser Pro Leu  
 1 5 10 15  
 Leu Asn Lys Asp Thr Ile Asp Phe Leu Asn Tyr Thr Val Asn Gly Asp  
 20 25 30  
 Glu Arg Gln Leu Trp Met Ser Leu Gly Gly Thr Trp Met Lys Ala Arg  
 35 40 45  
 Ala Glu Trp Pro Lys Glu Gln Phe Ile Pro Pro Tyr Val Pro Arg Phe  
 50 55 60  
 Arg Asn Gly Trp Glu Pro Pro Met Leu Asn Phe Met Gly Ala Thr Met  
 65 70 75 80  
 Glu Gln Asp Leu Tyr Gln Leu Ala Glu Ser Val Ala Asn Val Ala Glu

## 4196

	85		90		95
His Gln Arg Lys Gln Glu Ile Lys Arg Leu Ser Thr Glu His Ser Ser	100		105		110
Val Ser Glu Tyr His Pro Ala Asp Gly Tyr Ala Phe Ser Ser Asn Ile	115		120		125
Tyr Thr Arg Gly Ser His Leu Asp Gln Gly Glu Ala Ala Val Ala Phe	130		135		140
Lys Pro Thr Ser Asn Arg His Ile Asp Arg Asn Tyr Glu Pro Leu Lys	145		150		155
Thr Gln Pro Lys Lys Tyr Ala Lys Ser Lys Tyr Asp Phe Val Ala Arg	165		170		175
Asn Asn Ser Glu Leu Ser Val Leu Lys Asp Asp Ile Leu Glu Ile Leu	180		185		190
Asp Asp Arg Lys Gln Trp Trp Lys Val Arg Asn Ala Ser Gly Asp Ser	195		200		205
Gly Phe Val Pro Asn Asn Ile Leu Asp Ile Val Arg Pro Pro Glu Ser	210		215		220
Gly Leu Gly Arg Ala Asp Pro Pro Tyr Thr His Thr Ile Gln Lys Gln	225		230		235
Arg Met Glu Tyr Gly Pro Arg Pro Ala Asp Thr Pro Pro Ala Pro Ser	245		250		255
Pro Pro Pro Thr Pro Ala Pro Val Pro Val Pro Leu Pro Pro Ser Thr	260		265		270
Pro Ala Pro Val Pro Val Ser Lys Val Pro Ala Asn Ile Thr Arg Gln	275		280		285
Asn Ser Ser Ser Ser Asp Ser Gly Gly Ser Ile Val Arg Asp Ser Gln	290		295		300
Arg His Lys Gln Leu Pro Val Asp Arg Arg Asn Leu Arg Trp Arg Lys	305		310		315
Cys Lys Met Asn Ser Ser Thr Asp	325				

&lt;210&gt; 4626

&lt;211&gt; 578

## 4197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (74)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (89)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4626

Gly	Val	Gly	Asp	Gly	Gln	Ala	Pro	Met	Pro	Gly	Xaa	Thr	Glu	Glu	Pro
1				5					10					15	

Arg	Pro	Pro	Glu	Gln	Gln	Asp	Gln	Glu	Gly	Gly	Glu	Ala	Ala	Lys	Ala
			20					25					30		

Ala	Pro	Glu	Xaa	Pro	Gln	Gln	Arg	Pro	Pro	Glu	Ala	Val	Ala	Ala	Ala
		35					40					45			

Pro	Ala	Gly	Thr	Thr	Ser	Ser	Arg	Val	Leu	Arg	Gly	Gly	Arg	Asp	Arg
	50					55					60				

Gly	Arg	Ala	Ala	Ala	Ala	Arg	Arg	Arg	Xaa	Ser	Cys	Val	Pro	Pro	Glu
65					70					75					80

Xaa	Gly	Arg	Val	Ser	Pro	Pro	Ala	Xaa	Glu	Gln	Pro	Gln	Arg	Gln	Ala
				85					90					95	

Ser	Arg	Arg	Pro	Arg	Ala	Ala	Ala	Gln	Ala	Ala	Lys	Ser	Pro	Ser	Pro
			100					105					110		

Val	Gln	Gly	Lys	Lys	Ser	Pro	Arg	Leu	Leu	Cys	Ile	Glu	Lys	Val	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4198

115	120	125
Thr Asp Lys Asp Pro Lys Glu Glu Lys Glu Glu Glu Asp Asp Ser Ala		
130	135	140
Leu Pro Gln Glu Val Ser Ile Ala Ala Ser Arg Pro Ser Arg Gly Trp		
145	150	155
Arg Ser Ser Arg Thr Ser Val Ser Arg His Arg Asp Thr Glu Asn Thr		
	165	170
		175
Arg Ser Ser Arg Ser Lys Thr Gly Ser Leu Gln Leu Ile Cys Lys Ser		
	180	185
		190
Glu Pro Asn Thr Asp Gln Leu Asp Tyr Asp Val Gly Glu Glu His Gln		
	195	200
		205
Ser Pro Gly Gly Ile Ser Ser Glu Glu Glu Glu Glu Glu Glu Glu		
	210	215
		220
Met Leu Ile Ser Glu Glu Glu Ile Pro Phe Lys Asp Asp Pro Arg Asp		
	225	230
		235
Glu Thr Tyr Lys Pro His Leu Glu Arg Glu Thr Pro Lys Pro Arg Arg		
	245	250
		255
Lys Ser Gly Lys Val Lys Glu Glu Lys Glu Lys Lys Glu Ile Lys Val		
	260	265
		270
Glu Val Glu Val Glu Val Lys Glu Glu Glu Asn Glu Ile Arg Glu Asp		
	275	280
		285
Glu Glu Pro Pro Arg Lys Arg Gly Arg Arg Arg Lys Asp Asp Lys Ser		
	290	295
		300
Pro Arg Leu Pro Lys Arg Arg Lys Lys Pro Pro Ile Gln Tyr Val Arg		
	305	310
		315
Cys Glu Met Glu Gly Cys Gly Thr Val Leu Ala His Pro Arg Tyr Leu		
	325	330
		335
Gln His His Ile Lys Tyr Gln His Leu Leu Lys Lys Lys Tyr Val Cys		
	340	345
		350
Pro His Pro Ser Cys Gly Arg Leu Phe Arg Leu Gln Lys Gln Leu Leu		
	355	360
		365
Arg His Ala Lys His His Thr Asp Gln Arg Asp Tyr Ile Cys Glu Tyr		
	370	375
		380
Cys Ala Arg Ala Phe Lys Ser Ser His Asn Leu Ala Val His Arg Met		

## 4199

385                      390                      395                      400  
 Ile His Thr Gly Glu Lys Pro Leu Gln Cys Glu Ile Cys Gly Phe Thr  
                                  405                      410                      415  
 Cys Arg Gln Lys Ala Ser Leu Asn Trp His Met Lys Lys His Asp Ala  
                                  420                      425                      430  
 Asp Ser Phe Tyr Gln Phe Ser Cys Asn Ile Cys Gly Lys Lys Phe Glu  
                                  435                      440                      445  
 Lys Lys Asp Ser Val Val Ala His Lys Ala Lys Ser His Pro Glu Val  
                                  450                      455                      460  
 Leu Ile Ala Glu Ala Leu Ala Ala Asn Ala Gly Ala Leu Ile Thr Ser  
 465                                   470                      475                      480  
 Thr Asp Ile Leu Gly Thr Asn Pro Glu Ser Leu Thr Gln Pro Ser Asp  
                                  485                      490                      495  
 Gly Gln Gly Leu Pro Leu Leu Pro Glu Pro Leu Gly Asn Ser Thr Ser  
                                  500                      505                      510  
 Gly Glu Cys Leu Leu Leu Glu Ala Glu Gly Met Ser Lys Ser Tyr Cys  
                                  515                      520                      525  
 Ser Gly Thr Glu Arg Val Ser Leu Met Ala Asp Gly Lys Ile Phe Val  
                                  530                      535                      540  
 Gly Ser Gly Ser Ser Gly Gly Thr Glu Gly Leu Val Met Asn Ser Asp  
 545                                   550                      555                      560  
 Ile Leu Gly Ala Thr Thr Glu Val Leu Ile Glu Asp Ser Asp Ser Ala  
                                  565                      570                      575  
 Gly Pro

&lt;210&gt; 4627

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4627

Lys Ile Met Ala Ser Pro Asp Trp Gly Tyr Asp Asp Lys Asn Gly Pro  
 1                      5                      10                      15

Glu Gln Trp Ser Lys Leu Tyr Pro Ile Ala Asn Gly Asn Asn Gln Ser  
                                  20                      25                      30



## 4200

Pro Val Asp Ile Lys Thr Ser Glu Thr Lys His Asp Thr Ser Leu Lys  
                   35                                  40                                  45

Pro Ile Ser Val Ser Tyr Asn Pro Ala Thr Ala Lys Glu Ile Ile Asn  
                   50                                  55                                  60

Val Gly His Ser Phe His Val Asn Phe Glu Asp Asn Asp Asn Arg Ser  
                   65                                  70                                  75                                  80

Val Leu Lys Gly Gly Pro Phe Ser Asp Ser Tyr Arg Leu Phe Gln Phe  
                                   85                                  90                                  95

His Phe His Trp Gly Ser Thr Asn Glu His Gly Ser Glu His Thr Val  
                                   100                                  105                                  110

Asp Gly Val Lys Tyr Ser Ala Glu Leu His Val Ala His Trp Asn Ser  
                   115                                  120                                  125

Ala Lys Tyr Ser Ser Leu Ala Glu Ala Ala Ser Lys Ala Asp Gly Leu  
                   130                                  135                                  140

Ala Val Ile Gly Val Leu Met Lys Val Gly Glu Ala Asn Pro Lys Leu  
                   145                                  150                                  155                                  160

Gln Lys Val Leu Asp Ala Leu Gln Ala Ile Lys Thr Lys Gly Lys Arg  
                                   165                                  170                                  175

Ala Pro Phe Thr Asn Phe Asp Pro Ser Thr Leu Leu Pro Ser Ser Leu  
                                   180                                  185                                  190

Asp Phe Trp Thr Tyr Pro Gly Ser Leu Thr His Pro Pro Leu Tyr Glu  
                   195                                  200                                  205

Ser Val Thr Trp Ile Ile Cys Lys Glu Ser Ile Ser Val Ser Ser Glu  
                   210                                  215                                  220

Gln Leu Ala Gln Phe Arg Ser Leu Leu Ser Asn Val Glu Gly Asp Asn  
                   225                                  230                                  235                                  240

Ala Val Pro Met Gln His Asn Asn Arg Pro Thr Gln Pro Leu Lys Gly  
                                   245                                  250                                  255

Arg Thr Val Arg Ala Ser Phe  
                   260

&lt;210&gt; 4628

&lt;211&gt; 301

&lt;212&gt; PRT

## 4201

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (156)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (185)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4628

Ala	Asp	Ala	Trp	Gly	Arg	Thr	Ala	Glu	Leu	Thr	Val	Thr	Ala	Ala	Leu
1				5					10					15	

Thr	Arg	Glu	Phe	Leu	Glu	Pro	Lys	Leu	Phe	Ser	Thr	Glu	Asp	Lys	Gln
		20						25					30		

Ala	Ala	Glu	Thr	Met	Gly	Ser	Pro	Ser	Ala	Cys	Pro	Tyr	Arg	Val	Cys
		35					40					45			

Ile	Pro	Trp	Gln	Gly	Leu	Leu	Leu	Thr	Ala	Ser	Leu	Leu	Thr	Phe	Trp
	50					55					60				

Asn	Leu	Pro	Asn	Ser	Ala	Gln	Thr	Asn	Ile	Asp	Val	Val	Pro	Phe	Asn
65					70					75					80

Val	Ala	Glu	Gly	Lys	Glu	Val	Leu	Leu	Val	Val	His	Asn	Glu	Ser	Gln
				85					90					95	

Asn	Leu	Tyr	Gly	Tyr	Asn	Trp	Tyr	Lys	Gly	Glu	Arg	Val	His	Ala	Asn
		100						105					110		

Tyr	Arg	Ile	Ile	Gly	Tyr	Val	Lys	Asn	Ile	Ser	Gln	Glu	Asn	Ala	Pro
		115					120					125			

Gly	Pro	Ala	His	Asn	Gly	Arg	Glu	Thr	Ile	Tyr	Pro	Asn	Gly	Thr	Leu
	130					135						140			

Leu	Ile	Gln	Asn	Val	Thr	His	Asn	Asp	Ala	Gly	Xaa	Tyr	Thr	Leu	His
145					150					155					160

Val	Ile	Lys	Glu	Asn	Leu	Val	Asn	Glu	Glu	Val	Thr	Arg	Gln	Phe	Tyr
				165					170					175	

Val	Phe	Ser	Glu	Pro	Pro	Lys	Pro	Xaa	Ile	Thr	Ser	Asn	Asn	Phe	Asn
			180					185					190		

Pro	Val	Glu	Asn	Lys	Asp	Ile	Val	Val	Leu	Thr	Cys	Gln	Pro	Glu	Thr
		195					200					205			

## 4202

Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Leu Val  
 210 215 220

Ser Pro Arg Leu Leu Leu Ser Thr Asp Asn Arg Thr Leu Val Leu Leu  
 225 230 235 240

Ser Ala Thr Lys Asn Asp Ile Gly Pro Tyr Glu Cys Glu Ile Gln Asn  
 245 250 255

Pro Val Gly Ala Ser Arg Ser Asp Pro Val Thr Leu Asn Val Arg Tyr  
 260 265 270

Glu Ser Val Gln Ala Ser Ser Pro Asp Leu Ser Ala Gly Thr Ala Val  
 275 280 285

Ser Ile Met Ile Gly Val Leu Ala Gly Met Ala Leu Ile  
 290 295 300

<210> 4629

<211> 256

<212> PRT

<213> Homo sapiens

<400> 4629

Pro Ala Gly Ala Gly Cys Arg Ala Gly Glu Arg Ala Gly Gln Ala Lys  
 1 5 10 15

Ala Leu Val Pro Ala Arg Cys Gly Pro Gln Ser Ala Ala Met Gly Ala  
 20 25 30

Ser Ala Arg Leu Leu Arg Ala Val Ile Met Gly Ala Pro Gly Ser Gly  
 35 40 45

Lys Gly Thr Val Ser Ser Arg Ile Thr Thr His Phe Glu Leu Lys His  
 50 55 60

Leu Ser Ser Gly Asp Leu Leu Arg Asp Asn Met Leu Arg Gly Thr Glu  
 65 70 75 80

Ile Gly Val Leu Ala Lys Ala Phe Ile Asp Gln Gly Lys Leu Ile Pro  
 85 90 95

Asp Asp Val Met Thr Arg Leu Ala Leu His Glu Leu Lys Asn Leu Thr  
 100 105 110

Gln Tyr Ser Trp Leu Leu Asp Gly Phe Pro Arg Thr Leu Pro Gln Ala  
 115 120 125

## 4203

Glu Ala Leu Asp Arg Ala Tyr Gln Ile Asp Thr Val Ile Asn Leu Asn  
 130 135 140  
 Val Pro Phe Glu Val Ile Lys Gln Arg Leu Thr Ala Arg Trp Ile His  
 145 150 155 160  
 Pro Ala Ser Gly Arg Val Tyr Asn Ile Glu Phe Asn Pro Pro Lys Thr  
 165 170 175  
 Val Gly Ile Asp Asp Leu Thr Gly Glu Pro Leu Ile Gln Arg Glu Asp  
 180 185 190  
 Asp Lys Pro Glu Thr Val Ile Lys Arg Leu Lys Ala Tyr Glu Asp Gln  
 195 200 205  
 Thr Lys Pro Val Leu Glu Tyr Tyr Gln Lys Lys Gly Val Leu Glu Thr  
 210 215 220  
 Phe Ser Gly Thr Glu Thr Asn Lys Ile Trp Pro Tyr Val Tyr Ala Phe  
 225 230 235 240  
 Leu Gln Thr Lys Val Pro Gln Arg Ser Gln Lys Ala Ser Val Thr Pro  
 245 250 255

&lt;210&gt; 4630

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4630

Asp Trp Gly Leu Ala Arg Ser Arg Pro Gly Cys Lys Cys Cys Gly Gly  
 1 5 10 15  
 Arg Lys Ser Arg Pro His Arg Arg Gly Ser Ala Val Met Pro Lys Tyr  
 20 25 30  
 Tyr Glu Asp Lys Pro Gln Ala Ala Arg Cys Ala Gly Leu Lys Glu Asp  
 35 40 45  
 Leu Gly Ala Cys Leu Leu Gln Ser Asp Cys Val Val Gln Glu Gly Lys  
 50 55 60  
 Ser Pro Arg Gln Cys Leu Lys Glu Gly Tyr Cys Asn Ser Leu Lys Tyr  
 65 70 75 80  
 Ala Phe Phe Glu Cys Lys Arg Ser Val Leu Asp Asn Arg Ala Arg Phe

## 4204

85

90

95

Arg Gly Arg Lys Gly Tyr  
100

&lt;210&gt; 4631

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4631

Glu His Gln Glu Ile Met Asn Asn Phe Gly Asn Glu Glu Phe Asp Cys  
1 5 10 15

His Phe Leu Asp Glu Gly Phe Thr Ala Lys Asp Ile Leu Asp Gln Lys  
20 25 30

Ile Asn Glu Val Ser Ser Ser Asp Asp Lys Asp Ala Phe Tyr Val Ala  
35 40 45

Asp Leu Gly Asp Ile Leu Lys Lys His Leu Arg Trp Leu Lys Ala Leu  
50 55 60

Pro Arg Val Thr Pro Phe Tyr Ala Val Lys Cys Asn Asp Ser Lys Ala  
65 70 75 80

Ile Val Lys Thr Leu Ala Ala Thr Gly Thr Gly Phe Asp Cys Ala Ser  
85 90 95

Lys Thr Glu Ile Gln Leu Val Gln Ser Leu Gly Val Pro Pro Glu Arg  
100 105 110

Ile Ile Tyr Ala Asn Pro Cys Lys Gln Val Ser Gln Ile Lys Tyr Ala  
115 120 125

Ala Asn Asn Gly Val Gln Met Met Thr Phe Asp Ser Glu Val Glu Leu  
130 135 140

Met Lys Val Ala Arg Ala His Pro Lys Ala Lys Leu Val Leu Arg Ile  
145 150 155 160

Ala Thr Asp Asp Ser Lys Ala Val Cys Arg Leu Ser Val Lys Phe Gly  
165 170 175

Ala Thr Leu Arg Thr Ser Arg Leu Leu Leu Glu Arg Ala Lys Glu Leu  
180 185 190

Asn Ile Asp Val Val Gly Val Ser Phe His Val Gly Ser Gly Cys Thr  
195 200 205

## 4205

Asp Pro Glu Thr Phe Val Gln Ala Ile Ser Asp Ala Arg Cys Val Phe  
 210 215 220  
 Asp Met Gly Ala Glu Val Gly Phe Ser Met Tyr Leu Leu Asp Ile Gly  
 225 230 235 240  
 Gly Gly Phe Pro Gly Ser Glu Asp Val Lys Leu Lys Phe Glu Glu Ile  
 245 250 255  
 Thr Gly Val Ile Asn Pro Ala Leu Asp Lys Tyr Phe Pro Ser Asp Ser  
 260 265 270  
 Gly Val Arg Ile Ile Ala Glu Pro Gly Arg Tyr Tyr Val Ala Ser Ala  
 275 280 285  
 Phe Thr Leu Ala Val Asn Ile Ile Ala Lys Lys Ile Val Leu Lys Glu  
 290 295 300  
 Gln Thr Gly Ser Asp Asp Glu Asp Glu Ser Ser Glu Gln Thr Phe Met  
 305 310 315 320  
 Tyr Tyr Val Asn Asp Gly Val Tyr Gly Ser Phe Asn Cys Ile Leu Tyr  
 325 330 335  
 Asp His Ala His Val Lys Pro Leu Leu Gln Lys Arg Pro Lys Pro Asp  
 340 345 350  
 Glu Lys Tyr Tyr Ser Ser Ser Ile Trp Gly Pro Thr Cys Asp Gly Leu  
 355 360 365  
 Asp Arg Ile Val Glu Arg Cys Asp Leu Pro Glu Met His Val Gly Asp  
 370 375 380  
 Trp Met Leu Phe Glu Asn Met Gly Ala Tyr Thr Val Ala Ala Ala Ser  
 385 390 395 400  
 Thr Phe Asn Gly Phe Gln Arg Pro Thr Ile Tyr Tyr Val Met Ser Gly  
 405 410 415  
 Pro Ala Trp Gln Leu Met Gln Gln Phe Gln Asn Pro Asp Phe Pro Pro  
 420 425 430  
 Glu Val Glu Glu Gln Asp Ala Ser Thr Leu Pro Val Ser Cys Ala Trp  
 435 440 445  
 Glu Ser Gly Met Lys Arg His Arg Ala Ala Cys Ala Ser Ala Ser Ile  
 450 455 460  
 Asn Val  
 465

## 4206

&lt;210&gt; 4632

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4632

Asn Ser Ala Arg Gly His Cys Trp Leu Arg Leu Arg Ser Gly Pro Trp  
 1 5 10 15

Ile Ser Ser Lys Met Ala Ala Arg Ser Val Ser Gly Ile Thr Arg Arg  
 20 25 30

Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys Arg Glu Phe Trp Ser  
 35 40 45

Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val Glu Thr Val Glu Glu  
 50 55 60

Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu Arg Ser Arg Ala Tyr  
 65 70 75 80

Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu Ser Tyr Val Lys Glu  
 85 90 95

Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln Asp Ile Ser Leu Glu  
 100 105 110

Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His Leu Ala Asp Asp Leu  
 115 120 125

Gly His Val Val Pro Asn Ser Arg Leu His Gln Met Cys Arg Val Arg  
 130 135 140

Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln Asp Arg Ser Lys Phe  
 145 150 155 160

Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn Leu Lys Ile Thr Trp  
 165 170 175

Ser Tyr

&lt;210&gt; 4633

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4207

&lt;400&gt; 4633

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Arg Pro Ala Pro Ala Gly Ala Arg Pro Pro Leu Ile Pro Asp Pro Ala
 1              5              10              15

Val Gly Ala Met Ala Glu Ala Val Leu Arg Val Ala Arg Arg Gln Leu
      20              25              30

Ser Gln Arg Gly Gly Ser Gly Ala Pro Ile Leu Leu Arg Gln Met Phe
      35              40              45

Glu Pro Val Ser Cys Thr Phe Thr Tyr Leu Leu Gly Asp Arg Glu Ser
      50              55              60

Arg Glu Ala Val Leu Ile Asp Pro Val Leu Glu Thr Ala Pro Arg Asp
      65              70              75              80

Ala Gln Leu Ile Lys Glu Leu Gly Leu Arg Leu Leu Tyr Ala Val Asn
      85              90              95

Thr His Cys His Ala Asp His Ile Thr Gly Ser Gly Leu Leu Arg Ser
      100             105             110

Leu Leu Pro Gly Cys Gln Ser Val Ile Ser Arg Leu Ser Gly Ala Gln
      115             120             125

Ala Asp Leu His Ile Glu Asp Gly Asp Ser Ile Arg Phe Gly Arg Phe
      130             135             140

Ala Leu Glu Thr Arg Ala Ser Pro Gly His Thr Pro Gly Cys Val Thr
      145             150             155             160

Phe Val Leu Asn Asp His Ser Met Ala Phe Thr Gly Asp Ala Leu Leu
      165             170             175

Ile Arg Gly Cys Gly Arg Thr Asp Phe Gln Gln Gly Cys Ala Lys Thr
      180             185             190

Leu Tyr His Ser Val His Glu Lys Ile Phe Thr Leu Pro Gly Asp Cys
      195             200             205

Leu Ile Tyr Pro Ala His Asp Tyr His Gly Phe Thr Val Ser Thr Val
      210             215             220

Glu Glu Glu Arg Thr Leu Asn Pro Arg Leu Thr Leu Ser Cys Glu Glu
      225             230             235             240

Phe Val Lys Ile Met Gly Asn Leu Asn Leu Pro Lys Pro Gln Gln Ile
      245             250             255

Asp Phe Ala Val Pro Ala Asn Met Arg Cys Gly Val Gln Thr Pro Thr

```



## 4208

260

265

270

Ala

&lt;210&gt; 4634

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4634

Val	Thr	Ser	Glu	Gly	Val	Arg	Val	Arg	Ser	Ser	Arg	Gly	Arg	Ala	Xaa
1				5					10					15	

Gly	Val	Trp	Arg	Phe	Glu	Arg	Asp	Glu	Asp	Gly	Thr	Gly	Ala	Gly	Cys
			20					25					30		

Gly	Gln	Trp	Thr	Arg	Phe	Cys	Arg	Glu	Pro	Lys	Met	Ala	Val	Asn	Val
		35					40					45			

Tyr	Ser	Thr	Ser	Val	Thr	Ser	Asp	Asn	Leu	Ser	Arg	His	Asp	Met	Leu
	50					55					60				

Ala	Trp	Ile	Asn	Glu	Ser	Leu	Gln	Leu	Asn	Leu	Thr	Lys	Ile	Glu	Gln
65					70					75				80	

Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
				85					90					95	

Gly	Ser	Ile	Ala	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His
			100					105					110		

Glu	Tyr	Ile	Gln	Asn	Phe	Lys	Ile	Leu	Gln	Ala	Gly	Phe	Lys	Arg	Met
		115					120					125			

Gly	Val	Asp	Lys	Ile	Ile	Pro	Val	Asp	Lys	Leu	Val	Lys	Gly	Lys	Phe
	130					135					140				

Gln	Asp	Asn	Phe	Glu	Phe	Val	Gln	Trp	Phe	Lys	Lys	Phe	Phe	Asp	Ala
145					150					155					160

Asn	Tyr	Asp	Gly	Lys	Asp	Tyr	Asp	Pro	Val	Ala	Ala	Arg	Gln	Gly	Gln
				165					170					175	

## 4209

Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro  
 180 185 190  
 Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser  
 195 200 205  
 Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg  
 210 215 220  
 Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met  
 225 230 235 240  
 Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu  
 245 250 255  
 Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln  
 260 265 270  
 Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile  
 275 280 285  
 Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro  
 290 295 300  
 Gln Glu Glu Gln Glu Glu Tyr  
 305 310

&lt;210&gt; 4635

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4635

Asn Ala Met Arg Xaa Ser Gly Asp Ala Phe Asp Ile Gln Arg Cys Tyr  
 1 5 10 15

Cys Asn Tyr Thr Thr Asp Val Val Ala Ser Val Ala Phe Gly Thr Pro  
 20 25 30

Val Asp Ser Trp Gln Ala Pro Glu Asp Pro Phe Val Lys His Cys Lys  
 35 40 45

Arg Phe Phe Glu Phe Cys Ile Pro Arg Pro Ile Leu Val Leu Leu Leu  
 50 55 60

## 4210

Ser	Phe	Pro	Ser	Ile	Met	Val	Pro	Leu	Ala	Arg	Ile	Leu	Pro	Asn	Lys	65	70	75	80
Asn	Arg	Asp	Glu	Leu	Asn	Gly	Phe	Phe	Asn	Lys	Leu	Ile	Arg	Asn	Val	85	90	95	
Ile	Ala	Leu	Arg	Asp	Gln	Gln	Ala	Ala	Glu	Glu	Arg	Arg	Arg	Asp	Phe	100	105	110	
Leu	Gln	Met	Val	Leu	Asp	Ala	Arg	His	Ser	Ala	Ser	Pro	Met	Gly	Val	115	120	125	
Gln	Asp	Phe	Asp	Ile	Val	Arg	Asp	Val	Phe	Ser	Ser	Thr	Gly	Cys	Lys	130	135	140	
Pro	Asn	Pro	Ser	Arg	Gln	His	Gln	Pro	Ser	Pro	Met	Ala	Arg	Pro	Leu	145	150	155	160
Thr	Val	Asp	Glu	Ile	Val	Gly	Gln	Ala	Phe	Ile	Phe	Leu	Ile	Ala	Gly	165	170	175	
Tyr	Glu	Ile	Ile	Thr	Asn	Thr	Leu	Ser	Phe	Ala	Thr	Tyr	Leu	Leu	Ala	180	185	190	
Thr	Asn	Pro	Asp	Cys	Gln	Glu	Lys	Leu	Leu	Arg	Glu	Val	Asp	Val	Phe	195	200	205	
Lys	Glu	Lys	His	Met	Ala	Pro	Glu	Phe	Cys	Ser	Leu	Glu	Glu	Gly	Leu	210	215	220	
Pro	Tyr	Leu	Asp	Met	Val	Ile	Ala	Glu	Thr	Leu	Arg	Met	Tyr	Pro	Pro	225	230	235	240
Ala	Phe	Arg	Phe	Thr	Arg	Glu	Ala	Ala	Gln	Asp	Cys	Glu	Val	Leu	Gly	245	250	255	
Gln	Arg	Ile	Pro	Ala	Gly	Ala	Val	Leu	Glu	Met	Ala	Val	Gly	Ala	Leu	260	265	270	
His	His	Asp	Pro	Glu	His	Trp	Pro	Ser	Pro	Glu	Thr	Phe	Asn	Pro	Glu	275	280	285	
Arg	Phe	Thr	Ala	Glu	Ala	Arg	Gln	Gln	His	Arg	Pro	Phe	Thr	Tyr	Leu	290	295	300	
Pro	Phe	Gly	Ala	Gly	Pro	Arg	Ser	Cys	Leu	Gly	Val	Arg	Leu	Gly	Leu	305	310	315	320
Leu	Glu	Val	Lys	Leu	Thr	Leu	Leu	His	Val	Leu	His	Lys	Phe	Arg	Phe	325	330	335	

## 4211

Gln Ala Cys Pro Glu Thr Gln Val Pro Leu Gln Leu Glu Ser Lys Ser  
                   340                  345                  350

Ala Leu Gly Pro Lys Asn Gly Val Tyr Ile Lys Ile Val Ser Arg  
                   355                  360                  365

<210> 4636

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4636

Val Val Cys Gln Ser Arg Arg Arg Arg Arg Arg Xaa Arg Arg Arg Arg  
   1                  5                  10                  15

Ser Thr Val Ile Arg Pro Pro Arg Arg Gly Val Gly Gly Leu Arg Gly  
                   20                  25                  30

Thr Phe Phe Phe Phe Arg Leu Thr Ala Gly Gln Leu Arg Ser Met Ser  
                   35                  40                  45

Thr Pro Ala Arg Arg Arg Leu Met Arg Asp Phe Lys Arg Leu Gln Glu  
                   50                  55                  60

Asp Pro Pro Val Gly Val Ser Gly Ala Pro Ser Glu Asn Asn Ile Met  
   65                  70                  75                  80

Gln Trp Asn Ala Val Ile Phe Gly Pro Glu Gly Thr Pro Phe Glu Asp  
                   85                  90                  95

Gly Thr Phe Lys Leu Val Ile Glu Phe Ser Glu Glu Tyr Pro Asn Lys  
                   100                  105                  110

Pro Pro Thr Val Arg Phe Leu Ser Lys Met Phe His Pro Asn Val Tyr  
                   115                  120                  125

Ala Asp Gly Ser Ile Cys Leu Asp Ile Leu Gln Asn Arg Trp Ser Pro  
                   130                  135                  140

Thr Tyr Asp Val Ser Ser Ile Leu Thr Ser Ile Gln Ser Leu Leu Asp  
   145                  150                  155                  160

Glu Pro Asn Pro Asn Ser Pro Ala Asn Ser Gln Ala Ala Gln Leu Tyr

## 4212

165 170 175

Gln Glu Asn Lys Arg Glu Tyr Glu Lys Arg Val Ser Ala Ile Val Glu

180 185 190

Gln Ser Trp Asn Asp Ser

195

```
<210> 4637
<211> 69
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```

<400> 4637
Leu Phe Phe Met Val Ser Asn Met Tyr Asp Gln Cys Ser His Cys Phe
  1             5             10             15
Lys Met Tyr Arg Val Asn Ile Asn Thr Ser Tyr Ala Xaa Lys Lys Lys
      20             25             30
Lys Lys Gly Gly Arg Ser Xaa Gly Ser Lys Leu Thr Tyr Ala Cys Met
      35             40             45
Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
      50             55             60
Val Val Leu Gln Arg
      65

```

```
<210> 4638
<211> 77
<212> PRT
<213> Homo sapiens
```

```
<400> 4638
Leu Tyr Cys Phe Ser Ser Val Leu Glu Lys Lys Ile Asn Pro Ala Ile
  1             5             10             15
```

## 4213

Thr Phe Trp Asn Cys Leu Asp Phe Ser Ala Val Gln Ala Ile Ser Asn  
                   20                  25                  30

Ile Val Leu Cys Arg Glu Cys His Cys Ser Phe Glu Cys Ile His Val  
                   35                  40                  45

Trp Val Leu Ile Ile Val Tyr Phe Leu Trp Gly Trp Lys Arg Lys Thr  
                   50                  55                  60

Ile Gln Ala Glu Lys Ser Ile Leu Lys Asp Ala Phe Leu  
                   65                  70                  75

<210> 4639

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4639

Gly Thr Arg Glu Cys Pro Leu Cys Leu Val Arg Leu Pro Pro Glu Arg  
                   1                  5                  10                  15

Ala Pro Arg Leu Leu Ser Cys Pro His Arg Ser Cys Arg Asp Cys Leu  
                   20                  25                  30

Arg His Tyr Leu Arg Leu Glu Ile Ser Glu Ser Arg Val Pro Ile Ser  
                   35                  40                  45

Cys Pro Glu Cys Ser Glu Arg Leu Asn Pro His Asp Ile Arg Leu Leu  
                   50                  55                  60

Leu Ala Asp Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg  
                   65                  70                  75                  80

Arg Tyr Leu Ala Ser Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp  
                                   85                  90                  95

Cys Gly Tyr Ala Val Ile Ala Tyr Gly Cys Ala Ser Cys Pro Lys Leu  
                   100                  105                  110

Thr Cys Glu Arg Glu Gly Cys Gln Thr Glu Phe Cys Tyr His Cys Lys  
                   115                  120                  125

Gln Ile Trp His Pro Asn Gln Thr Cys Asp Met Ala Arg Gln Gln Arg  
                   130                  135                  140

Ala Gln Thr Leu Arg Val Arg Thr Lys His Thr Ser Gly Leu Ser Tyr  
                   145                  150                  155                  160

## 4214

Gly	Gln	Glu	Ser	Gly	Pro	Asp	Asp	Ile	Lys	Pro	Cys	Pro	Arg	Cys	Ser	165	170	175
Ala	Tyr	Ile	Ile	Lys	Met	Asn	Asp	Gly	Ser	Cys	Asn	His	Met	Thr	Cys	180	185	190
Ala	Val	Cys	Gly	Cys	Glu	Phe	Cys	Trp	Leu	Cys	Met	Lys	Glu	Ile	Ser	195	200	205
Asp	Leu	His	Tyr	Leu	Ser	Pro	Ser	Gly	Cys	Thr	Phe	Trp	Gly	Lys	Lys	210	215	220
Pro	Trp	Ser	Arg	Lys	Lys	Lys	Ile	Leu	Trp	Gln	Leu	Gly	Thr	Leu	Ile	225	230	235
Gly	Ala	Pro	Val	Gly	Ile	Ser	Leu	Ile	Ala	Gly	Ile	Ala	Ile	Pro	Ala	245	250	255
Met	Val	Ile	Gly	Ile	Pro	Val	Tyr	Val	Gly	Arg	Lys	Ile	His	Ser	Arg	260	265	270
Tyr	Glu	Gly	Arg	Lys	Thr	Ser	Lys	His	Lys	Arg	Asn	Leu	Ala	Ile	Thr	275	280	285
Gly	Gly	Val	Thr	Leu	Ser	Val	Ile	Ala	Ser	Pro	Val	Ile	Ala	Ala	Val	290	295	300
Ser	Val	Gly	Ile	Gly	Val	Pro	Ile	Met	Leu	Ala	Tyr	Val	Tyr	Gly	Val	305	310	315
Val	Pro	Ile	Ser	Leu	Cys	Arg	Gly	Gly	Gly	Cys	Gly	Val	Ser	Thr	Ala	325	330	335
Asn	Gly	Lys	Gly	Val	Lys	Ile	Glu	Phe	Asp	Glu	Asp	Asp	Gly	Pro	Ile	340	345	350
Thr	Val	Ala	Asp	Ala	Trp	Arg	Ala	Leu	Lys	Asn	Pro	Ser	Ile	Gly	Glu	355	360	365
Ser	Ser	Ile	Glu	Gly	Leu	Thr	Ser	Val	Leu	Ser	Thr	Ser	Gly	Ser	Pro	370	375	380
Thr	Asp	Gly	Leu	Ser	Val	Met	Gln	Gly	Pro	Tyr	Ser	Glu	Thr	Ala	Ser	385	390	395
Phe	Ala	Ala	Leu	Ser	Gly	Gly	Thr	Leu	Ser	Gly	Gly	Ile	Leu	Ser	Ser	405	410	415
Gly	Lys	Gly	Lys	Tyr	Ser	Arg	Leu	Glu	Val	Gln	Ala	Asp	Val	Gln	Lys	420	425	430

## 4215

Glu Ile Phe Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn  
           435                          440                          445  
  
 Ala Ser Thr Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro  
           450                          455                          460  
  
 Gln Asp Arg Glu Cys Asn Asn Met Glu Ile Gln Val Asp Ile Glu Ala  
 465                          470                          475                          480  
  
 Lys Pro Ser His Tyr Gln Leu Val Ser Gly Ser Ser Thr Glu Asp Ser  
                           485                          490                          495  
  
 Leu His Val His Ala Gln Met Ala Glu Asn Glu Glu Glu Gly Ser Gly  
                           500                          505                          510  
  
 Gly Gly Gly Ser Glu Glu Asp Pro Pro Cys Arg His Gln Ser Cys Glu  
           515                          520                          525  
  
 Gln Lys Asp Cys Leu Ala Ser Lys Pro Trp Asp Ile Ser Leu Ala Gln  
           530                          535                          540  
  
 Pro Glu Ser Ile Arg Ser Asp Leu Glu Ser Ser Asp Ala Gln Ser Asp  
 545                          550                          555                          560  
  
 Asp Val Pro Asp Ile Thr Ser Asp Glu Cys Gly Ser Pro Arg Ser His  
                           565                          570                          575  
  
 Thr Ala Ala Cys Pro Ser Thr Pro Arg Ala Gln Gly Ala Pro Ser Pro  
           580                          585                          590  
  
 Ser Ala His Met Asn Leu Ser Ala Leu Ala Glu Gly Gln Thr Val Leu  
           595                          600                          605  
  
 Lys Pro Glu Gly Gly Glu Ala Arg Val  
           610                          615

&lt;210&gt; 4640

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4640

Arg Trp Arg Gly Ser Met Ser Gly Ser Met Ala Thr Ala Glu Ala Ser  
   1                          5                          10                          15

Gly Ser Asp Gly Lys Gly Gln Glu Val Glu Thr Ser Val Thr Tyr Tyr  
           20                          25                          30

Arg Leu Glu Glu Val Ala Lys Arg Asn Ser Leu Lys Glu Leu Trp Leu



## 4216

35	40	45
Val Ile His Gly Arg Val Tyr Asp Val Thr Arg Phe Leu Asn Glu His		
50	55	60
Pro Gly Gly Glu Glu Val Leu Leu Glu Gln Ala Gly Val Asp Ala Ser		
65	70	75
Glu Ser Phe Glu Asp Val Gly His Ser Ser Asp Ala Arg Glu Met Leu		
85	90	95
Lys Gln Tyr Tyr Ile Gly Asp Ile His Pro Ser Asp Leu Lys Pro Glu		
100	105	110
Ser Gly Ser Lys Asp Pro Ser Lys Asn Asp Thr Cys Lys Ser Cys Trp		
115	120	125
Ala Tyr Trp Ile Leu Pro Ile Ile Gly Ala Val Leu Leu Gly Phe Leu		
130	135	140
Tyr Arg Tyr Tyr Thr Ser Glu Ser Lys Ser Ser		
145	150	155

&lt;210&gt; 4641

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4641

Ser Gln Thr Pro His Tyr Ser Ser Leu Glu Leu Leu Ile Lys Glu Asn
1 5 10 15

Trp Lys Tyr Ile Cys Pro Cys Leu Asn Phe Ile Ala Leu Ile Cys Val
20 25 30

Ile Ser Leu Leu Thr Gly Arg Gly Thr Ser Phe Phe Pro Tyr
35 40 45

&lt;210&gt; 4642

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4217

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (335)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4642

Val	Glu	Trp	Asn	Arg	Leu	Phe	Ala	Gly	Leu	Leu	Glu	Glu	Gln	Arg	Gln
1				5					10					15	

Arg	Ser	Glu	Asp	Ser	Met	Tyr	Thr	Ala	Ile	Pro	Gln	Ser	Gly	Ser	Pro
			20					25					30		

Phe	Pro	Gly	Ser	Val	Gln	Asp	Pro	Gly	Leu	His	Val	Trp	Arg	Val	Glu
		35					40					45			

Lys	Leu	Lys	Pro	Val	Pro	Val	Ala	Gln	Glu	Asn	Gln	Gly	Val	Phe	Phe
50						55					60				

Ser	Gly	Asp	Ser	Tyr	Leu	Val	Leu	His	Asn	Gly	Pro	Glu	Glu	Val	Ser
65					70					75					80

His	Leu	His	Leu	Asn	Thr	Leu	Leu	Gly	Glu	Arg	Pro	Val	Gln	His	Arg
				85					90					95	

Glu	Val	Xaa	Gly	Asn	Glu	Ser	Asp	Leu	Phe	Met	Ser	Tyr	Phe	Pro	Arg
			100					105					110		

Gly	Leu	Lys	Tyr	Gln	Glu	Gly	Gly	Val	Glu	Ser	Ala	Phe	His	Lys	Thr
		115					120					125			

Ser	Thr	Gly	Ala	Pro	Ala	Ala	Ile	Lys	Lys	Leu	Tyr	Gln	Val	Lys	Gly
	130					135					140				

Lys	Lys	Asn	Ile	Arg	Ala	Thr	Glu	Arg	Ala	Leu	Asn	Trp	Asp	Ser	Phe
145					150					155					160

Asn	Thr	Gly	Asp	Cys	Phe	Ile	Leu	Asp	Leu	Gly	Gln	Asn	Ile	Phe	Ala
				165					170					175	

Trp	Cys	Gly	Gly	Lys	Ser	Asn	Ile	Leu	Glu	Arg	Asn	Lys	Ala	Arg	Asp
		180						185					190		

Leu	Ala	Leu	Ala	Ile	Arg	Asp	Ser	Glu	Arg	Gln	Gly	Lys	Ala	Gln	Val
		195					200					205			

Glu	Ile	Val	Thr	Asp	Gly	Glu	Glu	Pro	Ala	Glu	Met	Ile	Gln	Val	Leu
	210					215					220				

Gly	Pro	Lys	Pro	Ala	Leu	Lys	Glu	Gly	Asn	Pro	Glu	Glu	Asp	Leu	Thr
225					230					235				240	

## 4218

Ala Asp Lys Ala Asn Ala Gln Ala Ala Ala Leu Tyr Lys Val Ser Asp  
                           245                          250                          255

Ala Thr Gly Gln Met Asn Leu Thr Lys Val Ala Asp Ser Ser Pro Phe  
                           260                          265                          270

Ala Leu Glu Leu Leu Ile Ser Asp Asp Cys Phe Val Leu Asp Asn Gly  
                           275                          280                          285

Leu Cys Gly Lys Ile Tyr Ile Trp Lys Gly Arg Lys Ala Asn Glu Lys  
                           290                          295                          300

Glu Arg Gln Ala Ala Leu Gln Val Ala Glu Gly Phe Ile Ser Arg Met  
                           305                          310                          315                          320

Gln Tyr Ala Pro Asn Thr Gln Val Glu Ile Leu Pro Gln Gly Xaa Glu  
                           325                          330                          335

Ser Pro Ile Phe Lys Gln Phe Phe Lys Asp Trp Lys  
                           340                          345

<210> 4643

<211> 389

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (376)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4643

Phe Gln Gly Lys Ile Asp Ala Ala Tyr Phe Glu Thr Ser Lys Tyr Leu  
           1                          5                          10                          15

Leu Asp Val Leu Asn Lys Lys Tyr Ser Leu Leu Asp His Met Gln Ala  
                           20                          25                          30

Met Arg Arg Tyr Leu Leu Leu Gly Gln Gly Asp Phe Ile Arg His Leu  
                           35                          40                          45

Met Asp Leu Leu Lys Pro Glu Leu Val Arg Pro Ala Thr Thr Leu Tyr  
           50                          55                          60

Gln His Asn Leu Thr Gly Ile Leu Glu Thr Ala Val Arg Ala Thr Asn  
           65                          70                          75                          80

Ala Gln Phe Asp Ser Pro Glu Ile Leu Arg Arg Leu Asp Val Arg Leu

4219

85										90					95				
Leu	Glu	Val	Ser	Pro	Gly	Asp	Thr	Gly	Trp	Asp	Val	Phe	Ser	Leu	Asp				
			100							105				110					
Tyr	His	Val	Asp	Gly	Pro	Ile	Ala	Thr	Val	Phe	Thr	Arg	Glu	Cys	Met				
			115							120				125					
Ser	His	Tyr	Leu	Arg	Val	Phe	Asn	Phe	Leu	Trp	Arg	Ala	Lys	Arg	Met				
			130							135				140					
Glu	Tyr	Ile	Leu	Thr	Asp	Ile	Arg	Lys	Gly	His	Met	Cys	Asn	Ala	Lys				
			145							150				155					
Leu	Leu	Arg	Asn	Met	Pro	Glu	Phe	Ser	Gly	Val	Leu	His	Gln	Cys	His				
			165							170				175					
Ile	Leu	Ala	Ser	Glu	Met	Val	His	Phe	Ile	His	Gln	Met	Gln	Tyr	Tyr				
			180							185				190					
Ile	Thr	Phe	Glu	Val	Leu	Glu	Cys	Ser	Trp	Asp	Glu	Leu	Trp	Asn	Lys				
			195							200				205					
Val	Gln	Gln	Ala	Gln	Asp	Leu	Asp	His	Ile	Ile	Ala	Ala	His	Glu	Val				
			210							215				220					
Phe	Leu	Asp	Thr	Ile	Ile	Ser	Arg	Cys	Leu	Leu	Asp	Ser	Asp	Ser	Arg				
			225							230				235					
Ala	Leu	Leu	Asn	Gln	Leu	Arg	Ala	Val	Phe	Asp	Gln	Ile	Ile	Glu	Leu				
			245							250				255					
Gln	Asn	Ala	Gln	Asp	Ala	Ile	Tyr	Arg	Ala	Ala	Leu	Glu	Glu	Leu	Gln				
			260							265				270					
Arg	Arg	Leu	Gln	Phe	Glu	Glu	Lys	Lys	Lys	Gln	Arg	Glu	Ile	Glu	Gly				
			275							280				285					
Gln	Trp	Gly	Val	Thr	Ala	Ala	Glu	Glu	Glu	Glu	Glu	Asn	Lys	Arg	Ile				
			290							295				300					
Gly	Glu	Phe	Lys	Glu	Ser	Ile	Pro	Lys	Met	Cys	Ser	Gln	Leu	Arg	Ile				
			305							310				315					
Leu	Thr	His	Phe	Tyr	Gln	Gly	Ile	Val	Gln	Gln	Phe	Leu	Val	Leu	Leu				
			325							330				335					
Thr	Thr	Ser	Ser	Asp	Glu	Ser	Leu	Arg	Phe	Leu	Ser	Phe	Arg	Leu	Asp				
			340							345				350					
Phe	Asn	Glu	His	Tyr	Lys	Ala	Arg	Glu	Pro	Arg	Leu	Arg	Cys	Val	Ser				

## 4220

355                                      360                                      365  
 Gly Tyr Gln Gly Ala Ala Gln Xaa Pro His Val Lys Leu Ala Val Leu  
       370                                      375                                      380  
  
 Pro Gly Ser Cys Gly  
 385  
  
 <210> 4644  
 <211> 40  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 4644  
 Phe Cys Pro Ser Arg Leu Cys Phe Leu Pro Phe Leu Cys Ser Arg Ala  
       1                                      5                                      10                                      15  
  
 Ala Ile Ser Arg Asp Pro Phe Tyr Glu Met Leu Ala Ala Arg Lys Lys  
                                     20                                      25                                      30  
  
 Lys Val Ser Ser Thr Lys Arg His  
                                     35                                      40  
  
  
 <210> 4645  
 <211> 353  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 4645  
 Arg Lys Gln Cys Gln Asp Ser Lys Asp Ser Asn His Leu Pro Lys Met  
       1                                      5                                      10                                      15  
  
 Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr Ser  
                                     20                                      25                                      30  
  
 Gly Gln Tyr Tyr Asp Tyr Asp Phe Pro Leu Ser Ile Tyr Gly Gln Ser  
                                     35                                      40                                      45  
  
 Ser Pro Asn Cys Ala Pro Glu Cys Asn Cys Pro Glu Ser Tyr Pro Ser  
                                     50                                      55                                      60  
  
 Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val Pro  
       65                                      70                                      75                                      80  
  
 Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His Ile  
                                     85                                      90                                      95

## 4221

Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile Leu  
 100 105 110

Asp His Asn Leu Leu Glu Asn Ser Lys Ile Lys Gly Arg Val Phe Ser  
 115 120 125

Lys Leu Lys Gln Leu Lys Lys Leu His Ile Asn His Asn Asn Leu Thr  
 130 135 140

Glu Ser Val Gly Pro Leu Pro Lys Ser Leu Glu Asp Leu Gln Leu Thr  
 145 150 155 160

His Asn Lys Ile Thr Lys Leu Gly Ser Phe Glu Gly Leu Val Asn Leu  
 165 170 175

Thr Phe Ile His Leu Gln His Asn Arg Leu Lys Glu Asp Ala Val Ser  
 180 185 190

Ala Ala Phe Lys Gly Leu Lys Ser Leu Glu Tyr Leu Asp Leu Ser Phe  
 195 200 205

Asn Gln Ile Ala Arg Leu Pro Ser Gly Leu Pro Val Ser Leu Leu Thr  
 210 215 220

Leu Tyr Leu Asp Asn Asn Lys Ile Ser Asn Ile Pro Asp Glu Tyr Phe  
 225 230 235 240

Lys Arg Phe Asn Ala Leu Gln Tyr Leu Arg Leu Ser His Asn Glu Leu  
 245 250 255

Ala Asp Ser Gly Ile Pro Gly Asn Ser Phe Asn Val Ser Ser Leu Val  
 260 265 270

Glu Leu Asp Leu Ser Tyr Asn Lys Leu Lys Asn Ile Pro Thr Val Asn  
 275 280 285

Glu Asn Leu Glu Asn Tyr Tyr Leu Glu Val Asn Gln Leu Glu Lys Phe  
 290 295 300

Asp Ile Lys Ser Phe Cys Lys Ile Leu Gly Pro Leu Ser Tyr Ser Lys  
 305 310 315 320

Ile Lys His Leu Arg Leu Asp Gly Asn Arg Ile Ser Glu Thr Ser Leu  
 325 330 335

Pro Pro Asp Met Tyr Glu Cys Leu Arg Val Ala Asn Glu Val Thr Leu  
 340 345 350

Asn

## 4222

&lt;210&gt; 4646

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4646

Glu	Glu	Gln	Lys	Gly	Glu	Ile	Asn	Gly	Lys	Thr	Lys	Asn	Thr	Gln	Ile
1				5				10						15	

Cys	Gly	Phe	Gly	Xaa	Asn	Glu	Thr	Arg	Phe	Ile	Tyr	Leu	Lys	Lys	Cys
			20					25					30		

Trp	Cys	Ser	Asn	Thr	Lys	His	Tyr	Phe	His	Xaa	Glu	Lys	Ile	Thr	Tyr
		35					40					45			

Leu	Leu	Pro	Ser	Val	Leu
					50

&lt;210&gt; 4647

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4647

Asn	Met	Tyr	Ser	Gly	Arg	Leu	Gln	Trp	Leu	Thr	Pro	Val	Ile	Pro	Ala
1				5				10						15	

Leu	Trp	Gln	Ala	Glu	Met	Gly	Gly	Ser	Phe	Glu	Val	Arg	Ser	Leu	Arg
			20					25					30		

Pro	Ala	Trp	Pro	Thr	Trp
					35

&lt;210&gt; 4648

&lt;211&gt; 515

## 4223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4648

Gly	Glu	Trp	Pro	Lys	Ser	Leu	Arg	Ile	Pro	Glu	Gly	Pro	Ile	Asp	Gln	1	5	10	15
Gly	Pro	Ala	Ile	Gly	Arg	Val	Arg	Val	Leu	Glu	Glu	Gln	Leu	Val	Lys	20	25	30	
Ala	Lys	Glu	Gln	Ile	Glu	Asn	Tyr	Lys	Lys	Gln	Thr	Arg	Asn	Gly	Leu	35	40	45	
Gly	Lys	Asp	His	Glu	Ile	Leu	Arg	Arg	Arg	Ile	Glu	Asn	Gly	Ala	Lys	50	55	60	
Glu	Leu	Trp	Phe	Phe	Leu	Gln	Ser	Glu	Leu	Lys	Lys	Leu	Lys	Asn	Leu	65	70	75	80
Glu	Gly	Asn	Glu	Leu	Gln	Arg	His	Ala	Asp	Glu	Phe	Leu	Leu	Asp	Leu	85	90	95	
Gly	His	His	Glu	Arg	Ser	Ile	Met	Thr	Asp	Leu	Tyr	Tyr	Leu	Ser	Gln	100	105	110	
Thr	Asp	Gly	Ala	Gly	Asp	Trp	Arg	Glu	Lys	Glu	Ala	Lys	Asp	Leu	Thr	115	120	125	
Glu	Leu	Val	Gln	Arg	Arg	Ile	Thr	Tyr	Leu	Gln	Asn	Pro	Lys	Asp	Cys	130	135	140	
Ser	Lys	Ala	Lys	Lys	Leu	Val	Cys	Asn	Ile	Asn	Lys	Gly	Cys	Gly	Tyr	145	150	155	160
Gly	Cys	Gln	Leu	His	His	Val	Val	Tyr	Cys	Phe	Met	Ile	Ala	Tyr	Gly	165	170	175	
Thr	Gln	Arg	Thr	Leu	Ile	Leu	Glu	Ser	Gln	Asn	Trp	Arg	Tyr	Ala	Thr	180	185	190	
Gly	Gly	Trp	Glu	Thr	Val	Phe	Arg	Pro	Val	Ser	Glu	Thr	Cys	Thr	Asp	195	200	205	
Arg	Ser	Gly	Ile	Ser	Thr	Gly	His	Trp	Ser	Gly	Glu	Val	Lys	Asp	Lys	210	215	220	
Asn	Val	Gln	Val	Val	Glu	Leu	Pro	Ile	Val	Asp	Ser	Leu	His	Pro	Arg	225	230	235	240
Pro	Pro	Tyr	Leu	Pro	Leu	Ala	Val	Pro	Glu	Asp	Leu	Ala	Asp	Arg	Leu	245	250	255	



## 4224

Val Arg Val His Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val  
 260 265 270  
 Lys Tyr Leu Ile Arg Pro Gln Pro Trp Leu Glu Lys Glu Ile Glu Glu  
 275 280 285  
 Ala Thr Lys Lys Leu Gly Phe Lys His Pro Val Ile Gly Val His Val  
 290 295 300  
 Arg Arg Thr Asp Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu  
 305 310 315 320  
 Glu Tyr Met Val His Val Glu Glu His Phe Gln Leu Leu Ala Arg Arg  
 325 330 335  
 Met Gln Val Asp Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Ser  
 340 345 350  
 Leu Leu Lys Glu Ala Lys Thr Lys Tyr Pro Asn Tyr Glu Phe Ile Ser  
 355 360 365  
 Asp Asn Ser Ile Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu  
 370 375 380  
 Asn Ser Leu Arg Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala  
 385 390 395 400  
 Asp Phe Leu Val Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr  
 405 410 415  
 Glu Ile Met Gln Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser  
 420 425 430  
 Leu Asp Asp Ile Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile  
 435 440 445  
 Ala Ile Tyr Ala His Gln Pro Arg Thr Ala Asp Glu Ile Pro Met Glu  
 450 455 460  
 Pro Gly Asp Ile Ile Gly Val Ala Gly Asn His Trp Asp Gly Tyr Ser  
 465 470 475 480  
 Lys Gly Val Asn Arg Lys Leu Gly Arg Thr Gly Leu Tyr Pro Ser Tyr  
 485 490 495  
 Lys Val Arg Glu Lys Ile Glu Thr Val Lys Tyr Pro Thr Tyr Pro Glu  
 500 505 510  
 Ala Glu Lys  
 515

## 4225

&lt;210&gt; 4649

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4649

Ala Ala Gly Val Pro Val Phe Asp Phe Ser Val Asn Met Leu Phe Val  
1 5 10 15

His Ile Ser Thr Trp Trp Arg Pro Tyr Ser Leu Phe His Leu Pro Asn  
20 25 30

Asn Gly Lys Asn Ile Lys Val Asn Gln Cys Ala Leu Gly Ile Gln  
35 40 45

&lt;210&gt; 4650

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4650

Cys Ile Val Ile Ile Tyr Asp Arg Ser Ser His Phe Phe Leu Leu Lys  
1 5 10 15

Lys Ile Thr Leu Ser Pro Val Gly Asn Gly Ile Leu Trp Ala Phe Lys  
20 25 30

Arg Lys Phe Tyr Glu Thr  
35

&lt;210&gt; 4651

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4651

Gly Thr Ser Tyr Gly Leu Pro Arg Tyr Arg Trp Leu Thr His Ala Trp  
1 5 10 15

Asn Phe Phe Gln Arg Glu Phe Lys Cys Cys Gly Val Val Tyr Phe Thr  
20 25 30

Asp Trp Leu Glu Met Thr Glu Met Asp Trp Pro Pro Asp Ser Cys Cys  
35 40 45

## 4226

Val Arg Glu Phe Pro Gly Cys Ser Lys Gln Ala His Gln Glu Asp Leu  
 50 55 60  
 Ser Asp Leu Tyr Gln Glu Gly Cys Gly Lys Lys Met Tyr Ser Phe Leu  
 65 70 75 80  
 Arg Gly Thr Lys Gln Leu Gln Val Leu Arg Phe Leu Gly Ile Ser Ile  
 85 90 95  
 Gly Val Thr Gln Ile Leu Ala Met Ile Leu Thr Ile Thr Leu Leu Trp  
 100 105 110  
 Ala Leu Tyr Tyr Asp Arg Arg Glu Pro Gly Thr Asp Gln Met Met Ser  
 115 120 125  
 Leu Lys Asn Asp Asn Ser Gln His Leu Ser Cys Pro Ser Val Glu Leu  
 130 135 140  
 Leu Lys Pro Ser Leu Ser Arg Ile Phe Glu His Thr Ser Met Ala Asn  
 145 150 155 160  
 Ser Phe Asn Thr His Phe Glu Met Glu Glu Leu  
 165 170

&lt;210&gt; 4652

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4652

Ser Leu Gly Glu Leu Pro Thr Asp Pro Ser Ser Asp Glu Pro Val Phe  
 1 5 10 15  
 His Ile Ser His Ile Asp Arg Val Tyr Thr Leu Arg Thr Asp Asn Ile  
 20 25 30  
 Asn Glu Arg Thr Thr Trp Val Gln Lys Ile Lys Ala Ala Ser Glu Gln  
 35 40 45  
 Tyr Ile Asp Thr Glu Lys Lys Lys Arg Glu Lys Ala Tyr Gln Ala Arg  
 50 55 60  
 Ser Gln Lys Thr Ser Gly Ile Gly Arg Leu Met Val His Val Ile Glu  
 65 70 75 80  
 Ala Thr Glu Leu Lys Ala Cys Lys Pro Asn Gly Lys Ser Asn Pro Tyr  
 85 90 95

## 4227

Cys Glu Ile Ser Met Gly Ser Gln Ser Tyr Thr Thr Arg Thr Ile Gln  
 100 105 110  
 Asp Thr Leu Asn Pro Lys Trp Asn Phe Asn Cys Gln Phe Phe Ile Lys  
 115 120 125  
 Asp Leu Tyr Gln Asp Val Leu Cys Leu Thr Leu Phe Asp Arg Asp Gln  
 130 135 140  
 Phe Ser Pro Asp Asp Phe Leu Gly Arg Thr Glu Ile Pro Val Ala Lys  
 145 150 155 160  
 Ile Arg Thr Glu Gln Glu Ser Lys Gly Pro Met Thr Arg Arg Leu Leu  
 165 170 175  
 Leu His Glu Val Pro Thr Gly Glu Val Trp Val Arg Phe Asp Leu Gln  
 180 185 190  
 Leu Phe Glu Gln Lys Thr Leu Leu  
 195 200

&lt;210&gt; 4653

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4653

Val Ser Pro Gly Gly Gln Gln Gly Leu His Phe Ser Glu Gly Leu Glu  
 1 5 10 15  
 Gly Leu Val Glu Leu Leu Gly Gln Arg Ser Arg Ser Arg Glu Asn Ile  
 20 25 30  
 Arg Pro Ser Asp Leu Ser Ser Ala Leu Arg Ala Leu Pro Glu Ser Ser  
 35 40 45  
 Ser Arg Gly Leu Gln Ser Leu Arg Lys Pro Ser Gln Arg Ala Ala Pro  
 50 55 60  
 Thr Ser Gln Ala Val Cys Thr Ser Pro Cys Tyr Ala Leu Leu Cys Asn  
 65 70 75 80  
 Ile Leu Gln Gln Ser Ala Val His Gly Val Cys  
 85 90

&lt;210&gt; 4654

&lt;211&gt; 44

## 4228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4654

Ser Gln His Phe Ala Arg Pro Arg Arg Val Asp His Leu Arg Ser Gly  
 1 5 10 15

Val Arg Asp Gln Pro Asp Gln His Gly Glu Thr Pro Ser Leu Leu Lys  
 20 25 30

Ile Gln Lys Leu Ala Trp His Gly Gly Ala Cys Leu  
 35 40

&lt;210&gt; 4655

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4655

Thr Leu Arg Val Arg Thr Gly Ser Tyr Ser Ser Leu Cys Ala Phe Leu  
 1 5 10 15

Met Leu Gln Arg Ile Tyr His Leu Met Glu Glu Asn Ile Cys Lys Leu  
 20 25 30

Ala Pro Tyr Gln Ala Pro Ser Thr Tyr Ser Thr His Leu Asn Phe Glu  
 35 40 45

Cys Arg Ile Phe Lys Leu Gln Pro His Ile Leu Arg Ser Arg Lys Asn  
 50 55 60

Leu Met Gly Ile Asn Leu His Pro Leu Ala Leu Pro  
 65 70 75

&lt;210&gt; 4656

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4656

Ala His Ala Ser Thr His Ala Ser Gly Ser Val Ser Pro Cys Arg Gln  
 1 5 10 15

Leu His Phe Pro Leu Phe Leu Phe Pro Phe Pro Ser Arg Pro Arg Ala  
 20 25 30

Pro Pro Ser Leu Val Gly Trp Ser Arg Ser Pro Cys Ala Phe Ser Leu

## 4229

35	40	45
Leu Gly Ser Cys Val Arg Ala Cys Pro Ala Met Asn Glu Glu Tyr Asp		
50	55	60
Val Ile Val Leu Gly Thr Gly Leu Thr Glu Cys Ile Leu Ser Gly Ile		
65	70	75 80
Met Ser Val Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr		
85	90	95
Tyr Gly Gly Glu Ser Ala Ser Ile Thr Pro Leu Glu Asp Leu Tyr Lys		
100	105	110
Arg Phe Lys Ile Pro Gly Ser Pro Pro Glu Ser Met Gly Arg Gly Arg		
115	120	125
Asp Trp Asn Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln		
130	135	140
Leu Val Lys Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe		
145	150	155 160
Lys Val Thr Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Lys		
165	170	175
Val Pro Ser Thr Glu Ala Glu Ala Leu Ala Ser Ser Leu Met Gly Leu		
180	185	190
Phe Glu Lys Arg Arg Phe Arg Lys Phe Leu Val Tyr Val Ala Asn Phe		
195	200	205
Asp Glu Lys Asp Pro Arg Thr Phe Glu Gly Ile Asp Pro Lys Lys Thr		
210	215	220
Thr Met Arg Asp Val Tyr Lys Lys Phe Asp Leu Gly Gln Asp Val Ile		
225	230	235 240
Asp Phe Thr Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Asp Tyr Leu		
245	250	255
Asp Gln Pro Cys Tyr Glu Thr Ile Asn Arg Ile Lys Leu Tyr Tyr Cys		
260	265	270
Gly Lys Thr Thr Val Leu Ile Lys Asp Leu His Ser		
275	280	

&lt;210&gt; 4657

&lt;211&gt; 125

## 4230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4657

```

Asp Gly Val Leu Leu Leu Pro Arg Leu Glu Trp Ser Ala Trp Cys Asp
 1             5             10             15

Leu Gly Ser Leu Gln Thr Pro Pro Pro Gly Phe Lys Arg Phe Ser Trp
      20             25             30

Pro Ser Leu Leu Ser Ser Trp Asp Tyr Arg Cys Val Pro Pro Cys Pro
      35             40             45

Ala Asn Phe Cys Val Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro
      50             55             60

Ala Gly Leu Glu Leu Leu Thr Ser Gly Tyr Met Pro Thr Ser Thr Ser
      65             70             75             80

Gln Ser Ala Gly Ile Thr Gly Met Ser His Cys Ala Gln Pro Gly Ile
      85             90             95

Asp Asn Leu Tyr Ser Asp Asn Leu Leu Trp Leu Phe Asn Ile Pro Gln
      100            105            110

Gly Ala Leu Lys Ser Lys His Ser Arg Val Cys Ser Phe
      115            120            125

```

&lt;210&gt; 4658

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4658

```

Trp Arg Gly Val Gly Xaa Ala Arg Lys Lys Glu Asn Ser Pro Leu Gly
 1             5             10             15

Lys Lys Glu Glu Glu His Trp Ile Leu Thr Phe Trp Ile Leu Thr Leu
      20             25             30

Gly Cys Lys Thr Tyr Leu Pro Leu Ser Arg Leu Pro Ser Pro Ser Thr
      35             40             45

Leu Asn Val Leu Leu Ser Phe Ser Val Ser Ala Pro Ser Ser Pro Phe

```

## 4231

50                                      55                                      60  
 Pro Leu Pro Pro Pro His Thr Leu His Pro Leu Cys Pro Gly Pro Ser  
 65                                      70                                      75                                      80  
 Glu Gly His Cys Arg  
 85

&lt;210&gt; 4659

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4659

Val Asp Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Pro Arg  
 1                                      5                                      10                                      15  
 Val Arg Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 20                                      25                                      30  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Gly  
 35                                      40

&lt;210&gt; 4660

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4660

Asp Ile Thr Ala Lys Leu Gly Ile Gly Glu Met Ala Glu Thr Asp Pro  
 1                                      5                                      10                                      15  
 Lys Thr Val Gln Asp Leu Thr Ser Val Val Gln Thr Leu Leu Gln Gln  
 20                                      25                                      30  
 Met Gln Asp Lys Phe Gln Thr Met Ser Asp Gln Ile Ile Gly Arg Ile  
 35                                      40                                      45  
 Asp Asp Met Ser Ser Arg Ile Asp Asp Leu Glu Lys Asn Ile Ala Asp  
 50                                      55                                      60  
 Leu Met Thr Gln Ala Gly Val Glu Glu Leu Glu Ser Glu Asn Lys Ile  
 65                                      70                                      75                                      80  
 Pro Ala Thr Gln Lys Ser  
 85



## 4232

&lt;210&gt; 4661

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4661

Arg	Arg	Glu	Gly	Cys	Arg	Arg	Pro	Arg	Gly	Ser	Arg	Ala	Gly	Gly	Ala
1				5					10					15	

Ala	Ala	Ala	Ala	Met	Gln	Glu	Ile	Ile	Ala	Ser	Val	Asp	His	Ile	Lys
			20					25					30		

Phe	Asp	Leu	Glu	Ile	Ala	Val	Glu	Gln	Gln	Leu	Gly	Ala	Gln	Pro	Leu
		35					40					45			

Pro	Xaa	Gln	Thr	Gln	Pro	Pro	Ala	Lys	Xaa	Xaa	Thr	Pro	Gln	Val	Ile
	50					55					60				

Gly	Val	Met	Gln	Ser	Gln	Asn	Ser	Ser	Ala	Gly	Asn	Arg	Gly	Pro	Arg
65					70					75					80

Pro	Leu	Glu	Gln	Val	Thr	Cys	Tyr	Lys	Cys	Gly	Glu	Lys	Gly	His	Tyr
				85					90					95	

Ala	Asn	Arg	Cys	Thr	Lys	Gly	His	Leu	Ala	Phe	Leu	Ser	Gly	Gln	
			100					105						110	

&lt;210&gt; 4662

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4233

&lt;400&gt; 4662

Ser His Phe Val Cys Cys Val Lys Gln Lys Ala Leu Met Lys Lys Gln  
 1 5 10 15  
 Lys Val Met Tyr Val Tyr Glu Lys Ile Asn Cys Thr Ile Ser Phe Gln  
 20 25 30  
 Tyr Val Leu Leu Tyr Ile Leu Val Leu Phe Thr Phe Ser Ser Leu Leu  
 35 40 45  
 Arg Gly Cys Glu Leu Tyr Ser Phe Gln Leu Val Thr His Ile Arg Glu  
 50 55 60  
 Glu Ile Arg Glu Tyr  
 65

&lt;210&gt; 4663

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (205)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4663

Gly Ala Val Ala Ala Arg Ala Ile Arg Leu Thr His Leu Ala Pro  
 1 5 10 15  
 Val Pro Gln Asp Gln Ser Gly Ala Gly Arg Glu Gly Glu Glu Ala Arg  
 20 25 30  
 Ala Arg Arg Ala Arg Val Arg Ile Gly Ala Gly Arg Ser Arg Asp Leu  
 35 40 45  
 Gly Ser Gly Arg Gly Gly Cys Glu Arg Ala Ala Asn Arg Ala Gly Gly  
 50 55 60  
 Gly Arg Ala His His Gly Gly Glu Thr Arg Asp Gln Leu Thr Val Tyr  
 65 70 75 80  
 Leu Gly Lys Arg Asp Phe Val Asp His Leu Asp Lys Val Asp Pro Val  
 85 90 95

## 4234

Asp Gly Val Val Leu Val Asp Pro Asp Tyr Leu Lys Asp Arg Lys Val  
                   100                  105                  110  
 Phe Val Thr Leu Thr Cys Ala Phe Arg Tyr Gly Arg Glu Asp Leu Asp  
                   115                  120                  125  
 Val Leu Gly Leu Ser Phe Arg Lys Asp Leu Phe Ile Ala Thr Tyr Gln  
                   130                  135                  140  
 Ala Phe Pro Pro Val Pro Asn Pro Pro Arg Pro Pro Thr Arg Leu Gln  
                   145                  150                  155                  160  
 Asp Arg Leu Leu Arg Lys Leu Gly Gln His Ala Xaa Pro Phe Phe Phe  
                   165                  170                  175  
 Thr Ile Pro Gln Asn Leu Pro Cys Ser Val Thr Leu Gln Pro Gly Pro  
                   180                  185                  190  
 Glu Asp Thr Gly Lys Ala Cys Gly Val Asp Phe Glu Xaa Glu Pro Ser  
                   195                  200                  205  
 Val Leu Asn His  
                   210

<210> 4664  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 4664  
 Ala Ala Asn Lys Lys Asn Glu Ala Arg Leu Arg Ile Val Lys Thr Leu  
   1                  5                  10                  15  
 Glu Asp Ile Asp Leu Gly Pro Thr Glu Lys Cys Val Arg Val Asn Ser  
                   20                  25                  30  
 Val Ser Ser Gly Leu Ala Glu Glu Asp Leu Glu Thr Leu Leu Gln Ser  
                   35                  40                  45  
 Arg Val Leu Pro Ser Ser Leu Met Leu Pro Lys Val Glu Ser Pro Glu  
                   50                  55                  60  
 Glu Ile Gln Trp Phe Ala Asp Lys Phe Ser Phe His Leu Lys Gly Arg  
   65                  70                  75                  80  
 Lys Leu Glu Gln Pro Met Asn Leu Ile Pro Phe Val Glu Thr Ala Met  
                   85                  90                  95

## 4235

Gly Leu Leu Asn Phe Lys Ala Val Cys Glu Glu Thr Leu Lys Val Gly  
                   100                  105                  110

Pro Gln Val Gly Leu Phe Leu Asp Ala Val Val Phe Gly Arg Arg Arg  
           115                  120                  125

Leu Ser Ser Gln His Arg Cys Asn Lys  
       130                  135

<210> 4665

<211> 197

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (168)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (172)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4665

Val Ile Cys Met Trp Gln Gly Cys Ala Val Glu Arg Pro Val Gly Arg  
       1                  5                  10                  15

Met Thr Ser Gln Thr Pro Leu Pro Gln Ser Pro Arg Pro Arg Arg Pro  
                   20                  25                  30

Thr Met Ser Thr Val Val Glu Leu Asn Val Gly Gly Glu Phe His Thr  
           35                  40                  45

Thr Thr Leu Gly Thr Leu Arg Lys Phe Pro Gly Ser Lys Leu Ala Glu  
       50                  55                  60

Met Phe Ser Ser Leu Ala Lys Ala Ser Thr Asp Ala Glu Gly Arg Phe  
       65                  70                  75                  80

Phe Ile Asp Arg Pro Ser Thr Tyr Phe Arg Pro Ile Leu Asp Tyr Leu  
                   85                  90                  95

Arg Thr Gly Gln Val Pro Thr Gln His Ile Pro Glu Val Tyr Arg Glu  
           100                  105                  110

Ala Gln Phe Tyr Glu Ile Lys Pro Leu Val Lys Leu Leu Glu Asp Met  
       115                  120                  125

## 4236

Pro Gln Ile Phe Gly Glu Gln Val Ser Arg Lys Gln Phe Leu Leu Gln  
 130 135 140

Val Pro Gly Tyr Ser Glu Asn Leu Glu Leu Met Val Arg Leu Ala Arg  
 145 150 155 160

Ala Glu Ala Ile Thr Ala Arg Xaa Ser Ser Val Xaa Val Cys Leu Val  
 165 170 175

Glu Thr Glu Glu Gln Asp Ala Tyr Tyr Ser Glu Val Leu Cys Phe Ser  
 180 185 190

Cys Arg Ile Arg Arg  
 195

&lt;210&gt; 4666

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4666

Gln Ser Lys Met Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg  
 1 5 10 15

Gln Phe Thr Leu Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg  
 20 25 30

Ile Glu Gln Ala Cys Xaa Pro Ala Trp Ser Ala Asp Val Ala Ala Val  
 35 40 45

Val Met Gln Glu Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met  
 50 55 60

Thr Leu Thr Arg Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys  
 65 70 75 80

Gly Asn Cys Ser Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln  
 85 90 95

Val Val Gln Ala Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys  
 100 105 110

Ile Leu Val Ala Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr  
 115 120 125

## 4237

Met Phe Gln Gln Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn  
 130 135 140  
 Arg Ser Lys Phe Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser  
 145 150 155 160  
 Leu Lys Glu Ala Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp  
 165 170 175  
 Thr Lys Ala Ala Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met  
 180 185 190  
 Leu Gln His Glu Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu  
 195 200 205  
 Lys Ala Asn Glu Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu  
 210 215 220  
 Leu Phe Arg His Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu  
 225 230 235 240  
 Val Asp Ser Val Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser  
 245 250 255  
 Leu His Val Ser Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala  
 260 265 270  
 Ile Leu Arg Phe Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser  
 275 280 285  
 Ser Ser Glu Glu Asp  
 290

&lt;210&gt; 4667

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4238

&lt;400&gt; 4667

Pro Ala Ser Thr Ala Trp Val Pro Pro Pro Gly Xaa Asp Pro Gly Pro  
 1 5 10 15

Arg Ser Leu Ala Pro Gly Trp Asp Pro Ala Pro Gly Ser Tyr Xaa Arg  
 20 25 30

Gly Ser Gln Leu Arg Arg Pro Ala Gln Pro Asp Ser Leu Lys Ala Gln  
 35 40 45

Arg Ala Gly Ser Arg Pro Pro  
 50 55

&lt;210&gt; 4668

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4668

Val Asp Pro Arg Val Xaa Pro Arg Ser Gly Gly Glu Lys Pro Gly Gly  
 1 5 10 15

Leu Gly Ala Pro Ala Gly Ile Gly Ser Arg Leu Gly Cys Glu Arg Phe  
 20 25 30

Ser Arg Ser Arg Glu Ile Leu Gln Ala Ile Thr Met Ser Thr Asp Thr  
 35 40 45

Gly Val Ser Leu Pro Ser Tyr Glu Glu Asp Gln Gly Ser Lys Leu Ile  
 50 55 60

Arg Lys Ala Lys Glu Ala Pro Phe Val Pro Val Gly Ile Ala Gly Phe  
 65 70 75 80

Ala Ala Ile Val Ala Tyr Gly Leu Tyr Lys Leu Lys Ser Arg Gly Asn  
 85 90 95

Thr Lys Met Ser Ile His Leu Ile His Met Arg Val Ala Ala Gln Gly  
 100 105 110

Phe Val Val Gly Ala Met Thr Val Gly Met Gly Tyr Ser Met Tyr Arg  
 115 120 125

Glu Phe Trp Ala Lys Pro Lys Pro

## 4239

130

135

&lt;210&gt; 4669

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4669

Thr	Ala	Ser	Trp	Ser	Pro	Ala	Pro	Val	Pro	Ser	Ser	Leu	Glu	Arg	Leu
1				5					10					15	

Phe	Ser	Pro	Asp	Gly	Thr	Phe	Pro	Ser	Arg	Arg	Phe	Leu	Gly	Leu	Trp
			20					25					30		

Leu	Phe	Phe	Ser	Cys	Ala	Arg	Leu	Ile	Gly	His	Leu	Leu	Ala	Ser	Ile
		35					40					45			

Ser	Val	Val	Leu	Leu	Pro	His	Phe	Leu	Phe	Cys	Cys	Phe	Ser	Val	Leu
	50					55					60				

Ser	Lys	Tyr	Leu	Leu	Cys	Ser	Trp	Leu	Pro	Phe	Xaa	Arg	Gln	Val	Phe
65					70					75					80

Ser	Phe	Pro	Leu	Ala	Leu	Leu	Leu	Ile	Trp	Leu	Leu	Pro	Thr	Lys	Ala
				85					90					95	

Cys	Ser	Val	Arg	Ile	Ser	Trp	Phe	Ser	Thr	Cys	Gln	Asn	Leu	Leu	Gln
			100					105					110		

Pro	Gln	Phe	Leu	Gly	Leu	Asn	Leu	Tyr	Val
		115					120		

&lt;210&gt; 4670

&lt;211&gt; 439

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4670

Gly	Gly	Arg	Gly	Gln	Glu	Pro	Gln	Met	Arg	Ala	Phe	Leu	Ala	Cys	Met
1				5					10					15	

Arg	Ser	Asp	Thr	Pro	Ala	Met	Leu	Asn	Pro	Ala	Asn	Val	Pro	Thr	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



## 4240

20	25	30
Leu Met Val Leu Cys Cys Val Leu Arg Tyr Met Val Gln Trp Pro Gly		
35	40	45
Ala Arg Ile Leu Arg Arg Gln Glu Leu Asp Ala Phe Leu Ala Gln Ala		
50	55	60
Leu Ser Pro Lys Leu Tyr Glu Pro Asp Gln Leu Gln Glu Leu Lys Ile		
65	70	75
Glu Asn Leu Asp Pro Arg Gly Ile Gln Leu Ser Ala Leu Phe Met Ser		
85	90	95
Gly Val Asp Met Ala Leu Phe Ala Asn Asp Ala Cys Gly Gln Pro Ile		
100	105	110
Pro Trp Glu His Cys Cys Pro Trp Met Tyr Phe Asp Gly Lys Leu Phe		
115	120	125
Gln Ser Lys Leu Leu Lys Ala Ser Arg Glu Lys Thr Pro Leu Ile Asp		
130	135	140
Leu Cys Asp Gly Gln Ala Asp Gln Ala Ala Lys Val Glu Lys Met Arg		
145	150	155
Gln Ser Val Leu Glu Gly Leu Ser Phe Ser Arg Gln Ser His Thr Leu		
165	170	175
Pro Phe Pro Pro Pro Pro Ala Leu Pro Phe Tyr Pro Ala Ser Ala Tyr		
180	185	190
Pro Arg His Phe Gly Pro Val Pro Pro Ser Gln Gly Arg Gly Arg Gly		
195	200	205
Phe Ala Gly Val Cys Gly Phe Gly Gly Pro Tyr Gly Glu Thr Val Ala		
210	215	220
Thr Gly Pro Tyr Arg Ala Phe Arg Val Ala Ala Ala Ser Gly His Cys		
225	230	235
Gly Ala Phe Ser Gly Ser Asp Ser Ser Arg Thr Ser Lys Ser Gln Gly		
245	250	255
Gly Val Gln Pro Ile Pro Ser Gln Gly Gly Lys Leu Glu Ile Ala Gly		
260	265	270
Thr Val Val Gly His Trp Ala Gly Ser Arg Arg Gly Arg Gly Gly Arg		
275	280	285
Gly Pro Phe Pro Leu Gln Val Val Ser Val Gly Gly Pro Ala Arg Gly		

## 4241

290                                      295                                      300  
 Arg Pro Arg Gly Val Ile Ser Thr Pro Val Ile Arg Thr Phe Gly Arg  
 305                                      310                                      315                                      320  
 Gly Gly Arg Tyr Tyr Gly Arg Gly Tyr Lys Asn Gln Ala Ala Ile Gln  
                                     325                                      330                                      335  
 Gly Arg Pro Pro Tyr Ala Ala Ser Ala Glu Glu Val Ala Lys Glu Leu  
                                     340                                      345                                      350  
 Lys Ser Lys Ser Gly Glu Ser Lys Ser Ser Ala Met Ser Ser Asp Gly  
                                     355                                      360                                      365  
 Ser Leu Ala Glu Asn Gly Val Met Ala Glu Glu Lys Pro Ala Pro Gln  
                                     370                                      375                                      380  
 Met Asn Gly Ser Thr Gly Asp Ala Arg Ala Pro Ser His Ser Glu Ser  
 385                                      390                                      395                                      400  
 Ala Leu Asn Asn Asp Ser Lys Thr Cys Asn Thr Asn Pro His Leu Asn  
                                     405                                      410                                      415  
 Ala Leu Ser Thr Asp Ser Ala Cys Arg Arg Glu Ala Ala Leu Glu Ala  
                                     420                                      425                                      430  
 Ala Val Leu Asn Lys Glu Glu  
                                     435

&lt;210&gt; 4671

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4671

Asn Arg Lys Val Cys Arg Lys Ile Ala Ala His Gly Leu Cys Arg Lys  
   1                                      5                                      10                                      15  
 Glu Ser Leu Gln Asn Leu Leu His Ser Ser Arg Lys Leu Ser Leu Gln  
                                     20                                      25                                      30  
 Val Leu Asn Phe Val His Ser Phe Gln Glu Gly Ala Ser Ile Leu Asp  
                                     35                                      40                                      45  
 Ile His Thr Glu Pro Ser Phe Ser Ser Leu Leu Ser Gln Ser Ser Tyr  
                                     50                                      55                                      60  
 Ala Asp Met Gly Val Pro Leu Pro Ala Lys Asn Leu Ile Phe Lys Asp  
   65                                      70                                      75                                      80

## 4242

Gly Val Leu Ser Glu Trp Ser Gly Arg Ser Pro Ser Ser Leu Leu Ile  
85 90 95

Ala Asn Leu His Leu Gln  
100

<210> 4672

<211> 631

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

## 4243

&lt;222&gt; (341)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (357)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4672

Lys	Asp	Glu	Glu	Glu	Pro	Pro	Ser	Met	Thr	Gln	Leu	Leu	Arg	Arg
1				5				10					15	

Xaa	Xaa	Leu	Ser	Cys	His	Arg	Pro	Gly	Met	Trp	Ser	Val	His	Cys	Arg
			20					25					30		

Ser	Lys	Glu	Xaa	Xaa	Asp	Met	Met	Gly	Arg	Asn	Gln	Thr	Ala	Val	Arg
		35					40					45			

Glu	Glu	Met	Xaa	Leu	Leu	Ala	Asn	Tyr	Leu	Asp	Ser	Met	Tyr	Xaa	Met
	50					55					60				

Leu	Asn	Ile	Arg	Ile	Val	Leu	Val	Gly	Leu	Glu	Ile	Trp	Thr	Asn	Gly
65					70					75					80

Asn	Leu	Ile	Asn	Ile	Val	Gly	Gly	Ala	Gly	Asp	Val	Leu	Gly	Asn	Xaa
				85					90					95	

Val	Gln	Trp	Arg	Glu	Lys	Phe	Leu	Ile	Thr	Arg	Arg	Arg	His	Asp	Ser
			100					105					110		

Ala	Gln	Leu	Val	Leu	Lys	Lys	Gly	Phe	Gly	Gly	Thr	Ala	Gly	Met	Ala
		115					120					125			

Phe	Val	Gly	Thr	Val	Cys	Ser	Arg	Ser	His	Ala	Gly	Gly	Ile	Asn	Val
130						135					140				

Phe	Gly	Gln	Ile	Thr	Val	Glu	Thr	Phe	Ala	Ser	Ile	Val	Ala	His	Glu
145					150					155					160

Leu	Gly	His	Asn	Leu	Gly	Met	Asn	His	Asp	Asp	Gly	Arg	Asp	Cys	Ser
				165					170					175	

Cys	Gly	Ala	Lys	Ser	Cys	Ile	Met	Asn	Ser	Gly	Ala	Ser	Gly	Ser	Arg
			180					185					190		

Asn	Phe	Ser	Ser	Cys	Ser	Ala	Glu	Asp	Phe	Glu	Lys	Leu	Thr	Leu	Asn
		195					200					205			

Lys	Gly	Gly	Asn	Cys	Leu	Leu	Asn	Ile	Pro	Lys	Pro	Asp	Glu	Ala	Tyr
	210					215					220				

## 4244

Ser	Ala	Pro	Ser	Cys	Gly	Asn	Lys	Leu	Val	Asp	Ala	Gly	Glu	Glu	Cys	225	230	235	240
Asp	Cys	Gly	Thr	Pro	Lys	Glu	Cys	Glu	Leu	Asp	Pro	Cys	Cys	Glu	Gly	245	250	255	
Ser	Thr	Cys	Lys	Leu	Lys	Ser	Phe	Ala	Glu	Cys	Ala	Tyr	Gly	Asp	Cys	260	265	270	
Cys	Lys	Asp	Cys	Arg	Phe	Leu	Pro	Gly	Gly	Thr	Leu	Cys	Arg	Gly	Lys	275	280	285	
Thr	Ser	Glu	Cys	Asp	Val	Pro	Glu	Tyr	Cys	Asn	Gly	Ser	Ser	Gln	Phe	290	295	300	
Cys	Gln	Pro	Asp	Val	Phe	Ile	Gln	Asn	Gly	Tyr	Pro	Cys	Gln	Asn	Asn	305	310	315	320
Lys	Ala	Tyr	Cys	Tyr	Asn	Gly	Met	Cys	Gln	Tyr	Tyr	Asp	Ala	Gln	Cys	325	330	335	
Gln	Val	Ile	Phe	Xaa	Ser	Lys	Ala	Lys	Ala	Ala	Pro	Lys	Asp	Cys	Phe	340	345	350	
Ile	Glu	Val	Asn	Xaa	Lys	Gly	Asp	Arg	Phe	Gly	Asn	Cys	Gly	Phe	Ser	355	360	365	
Gly	Asn	Glu	Tyr	Lys	Lys	Cys	Ala	Thr	Gly	Asn	Ala	Leu	Cys	Gly	Lys	370	375	380	
Leu	Gln	Cys	Glu	Asn	Val	Gln	Glu	Ile	Pro	Val	Phe	Gly	Ile	Val	Pro	385	390	395	400
Ala	Ile	Ile	Gln	Thr	Pro	Ser	Arg	Gly	Thr	Lys	Cys	Trp	Gly	Val	Asp	405	410	415	
Phe	Gln	Leu	Gly	Ser	Asp	Val	Pro	Asp	Pro	Gly	Met	Val	Asn	Glu	Gly	420	425	430	
Thr	Lys	Cys	Gly	Ala	Gly	Lys	Ile	Cys	Arg	Asn	Phe	Gln	Cys	Val	Asp	435	440	445	
Ala	Ser	Val	Leu	Asn	Tyr	Asp	Cys	Asp	Val	Gln	Lys	Lys	Cys	His	Gly	450	455	460	
His	Gly	Val	Cys	Asn	Ser	Asn	Lys	Asn	Cys	His	Cys	Glu	Asn	Gly	Trp	465	470	475	480
Ala	Pro	Pro	Asn	Cys	Glu	Thr	Lys	Gly	Tyr	Gly	Gly	Ser	Val	Asp	Ser	485	490	495	

## 4245

Gly Pro Thr Tyr Asn Glu Met Asn Thr Ala Leu Arg Asp Gly Leu Leu  
 500 505 510  
 Val Phe Phe Phe Leu Ile Val Pro Leu Ile Val Cys Ala Ile Phe Ile  
 515 520 525  
 Phe Ile Lys Arg Asp Gln Leu Trp Arg Ser Tyr Phe Arg Lys Lys Arg  
 530 535 540  
 Ser Gln Thr Tyr Glu Ser Asp Gly Lys Asn Gln Ala Asn Pro Ser Arg  
 545 550 555 560  
 Gln Pro Gly Ser Val Pro Arg His Val Ser Pro Val Thr Pro Pro Arg  
 565 570 575  
 Glu Val Pro Ile Tyr Ala Asn Arg Phe Ala Val Pro Thr Tyr Ala Ala  
 580 585 590  
 Lys Gln Pro Gln Gln Phe Pro Ser Arg Pro Pro Pro Pro Gln Pro Lys  
 595 600 605  
 Val Ser Ser Gln Gly Asn Leu Ile Pro Ala Arg Pro Ala Pro Ala Pro  
 610 615 620  
 Pro Leu Tyr Ser Ser Leu Thr  
 625 630

<210> 4673  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 4673  
 Met Ile Ala Thr Tyr Cys Phe Cys Cys Cys Phe Phe Ser Asp Ser Phe  
 1 5 10 15  
 Leu Ser Leu Asp Leu Phe Val Leu Ser Cys Gly Glu Trp Cys Phe Ser  
 20 25 30  
 Tyr Cys Val Ala Ala Arg Ile Arg Ile Gln Phe Leu Phe Leu Leu Pro  
 35 40 45  
 Tyr Ser Tyr Cys Val Ala Thr Arg Ile Arg Ile Gln Phe Leu Phe Ile  
 50 55 60  
 Leu Pro Cys Ser Glu Gly Ser Leu Ile Ser Thr Lys Lys Leu Leu Glu  
 65 70 75 80  
 Ala Glu Lys Val Asn Val Ile Val His Ser Ala Phe Lys Lys Leu Phe

## 4246

85

90

95

Gln Leu

&lt;210&gt; 4674

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4674

Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val  
 1 5 10 15

Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Val Met Asn Arg Asn  
 20 25 30

Phe Gln Met  
 35

&lt;210&gt; 4675

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4675

Phe Ser Glu Val Gln Ile Ala Leu Asn Glu Ala Lys Leu Ser Glu Glu  
 1 5 10 15

Lys Val Lys Ser Glu Cys His Arg Val Gln Glu Glu Asn Ala Arg Leu  
 20 25 30

Lys Lys Lys Lys Glu Gln Leu Gln Gln Glu Ile Glu Asp Trp Ser Lys  
 35 40 45

Leu His Ala Glu Leu Ser Glu Gln Ile Lys Ser Phe Glu Lys Ser Gln  
 50 55 60

Lys Asp Leu Glu Val Ala Leu Thr His Lys Asp Asp Asn Ile Asn Ala  
 65 70 75 80

Leu Thr Asn Cys Ile Thr Gln Leu Asn Leu Leu Glu Cys Glu Ser Glu  
 85 90 95

Ser Glu Gly Gln Asn Lys Gly Gly Asn Asp Ser Asp Glu Leu Ala Asn  
 100 105 110

## 4247

Gly	Glu	Val	Gly	Gly	Asp	Arg	Asn	Glu	Lys	Met	Lys	Asn	Gln	Ile	Lys	115	120	125	
Gln	Met	Met	Asp	Val	Ser	Arg	Thr	Gln	Thr	Ala	Ile	Ser	Val	Val	Glu	130	135	140	
Glu	Asp	Leu	Lys	Leu	Leu	Gln	Leu	Lys	Leu	Arg	Ala	Ser	Val	Ser	Thr	145	150	155	160
Lys	Cys	Asn	Leu	Glu	Asp	Gln	Val	Lys	Lys	Leu	Glu	Asp	Asp	Arg	Asn	165	170	175	
Ser	Leu	Gln	Ala	Ala	Lys	Ala	Gly	Leu	Glu	Asp	Glu	Cys	Lys	Thr	Leu	180	185	190	
Arg	Gln	Lys	Val	Glu	Ile	Leu	Asn	Glu	Leu	Tyr	Gln	Gln	Lys	Glu	Met	195	200	205	
Ala	Leu	Gln	Lys	Lys	Leu	Ser	Gln	Glu	Glu	Tyr	Glu	Arg	Gln	Glu	Arg	210	215	220	
Glu	His	Arg	Leu	Ser	Ala	Ala	Asp	Glu	Lys	Ala	Val	Ser	Ala	Ala	Glu	225	230	235	240
Glu	Val	Lys	Thr	Tyr	Lys	Arg	Arg	Ile	Glu	Glu	Met	Glu	Asp	Glu	Leu	245	250	255	
Gln	Lys	Thr	Glu	Arg	Ser	Phe	Lys	Asn	Gln	Ile	Ala	Thr	His	Glu	Lys	260	265	270	
Lys	Ala	His	Glu	Asn	Trp	Leu	Lys	Ala	Arg	Ala	Ala	Glu	Arg	Ala	Ile	275	280	285	
Ala	Glu	Glu	Lys	Arg	Glu	Ala	Ala	Asn	Leu	Arg	His	Lys	Leu	Leu	Glu	290	295	300	
Leu	Thr	Gln	Lys	Met	Ala	Met	Leu	Gln	Glu	Glu	Pro	Val	Ile	Val	Lys	305	310	315	320
Pro	Met	Pro	Gly	Lys	Pro	Asn	Thr	Gln	Asn	Pro	Pro	Arg	Arg	Gly	Pro	325	330	335	
Leu	Ser	Gln	Asn	Gly	Ser	Phe	Gly	Pro	Ser	Pro	Val	Ser	Gly	Gly	Glu	340	345	350	
Cys	Ser	Pro	Pro	Leu	Thr	Val	Glu	Pro	Pro	Val	Arg	Pro	Leu	Ser	Ala	355	360	365	
Thr	Leu	Asn	Arg	Arg	Asp	Met	Pro	Arg	Ser	Glu	Phe	Gly	Ser	Val	Asp	370	375	380	



## 4248

Gly Pro Leu Pro His Pro Arg Trp Ser Ala Glu Ala Ser Gly Lys Pro  
 385 390 395 400

Ser Pro Ser Asp Pro Gly Ser Gly Thr Ala Thr Met Met Asn Ser Ser  
 405 410 415

Ser Arg Gly Ser Ser Pro Thr Arg Val Leu Asp Glu Gly Lys Val Asn  
 420 425 430

Met Ala Pro Lys Gly Pro Pro Pro Phe Pro Gly Val Pro Leu Met Ser  
 435 440 445

Thr Pro Met Gly Gly Pro Val Pro Pro Pro Ile Arg Tyr Gly Pro Pro  
 450 455 460

Pro Gln Leu Cys Gly Pro Phe Gly Pro Arg His Phe Leu His Pro Leu  
 465 470 475 480

Ala Leu Val Cys Val His His  
 485

<210> 4676

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4676

Ala Phe Asp Glu Ala Ile Ala Glu Leu Asp Thr Leu Asn Glu Glu Ser  
 1 5 10 15

Tyr Lys Asp Ser Thr Leu Xaa Met Gln Leu Leu Arg Asp Asn Leu Thr  
 20 25 30

Val Ser Thr Thr Ser Thr Gly Phe Ile Val Ser Phe Leu Phe Thr Tyr  
 35 40 45

Leu Ile Ile His Cys Tyr Leu Gln Glu Gly Ile Cys Thr Ile Lys Cys  
 50 55 60

Ser Tyr Ser Phe Lys Leu Leu Asn Leu Leu  
 65 70

## 4249

&lt;210&gt; 4677

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (391)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4677

Val	Ile	Gly	Glu	Phe	Arg	Asp	Cys	Ile	Ser	Ser	Arg	Glu	Phe	Leu	Gln
1				5					10					15	

Pro	Ser	Ser	Lys	Ala	Ser	Leu	Glu	Ser	Thr	Ser	Asp	Leu	Gly	Ala	Ser
			20					25					30		

Gly	Lys	His	Gly	Gly	Asn	Val	Ser	Leu	Asp	Val	Leu	Pro	Val	Lys	Gly
		35					40					45			

Pro	Gln	Gly	Ser	Pro	Leu	Leu	Ser	Arg	Ala	Ala	Arg	Pro	Pro	Asp	Gln
	50					55					60				

Leu	Ala	Ser	Glu	Glu	Pro	Trp	Thr	Val	Leu	Pro	Glu	His	Leu	Ile	Leu
65						70				75					80

Val	Ala	Pro	Ser	Pro	Cys	Asp	Met	Ala	Lys	Thr	Gly	Arg	Phe	Gln	Ile
				85					90					95	

Val	Asn	Asn	Ser	Val	Arg	Leu	Leu	Arg	Phe	Glu	Leu	Cys	Trp	Pro	Ala
			100					105					110		

His	Cys	Leu	Thr	Val	Thr	Pro	Gln	His	Gly	Cys	Val	Ala	Pro	Glu	Ser
		115					120					125			

Lys	Leu	Gln	Ile	Leu	Val	Ser	Pro	Asn	Ser	Ser	Leu	Ser	Thr	Lys	Gln
	130					135					140				

Ser	Met	Phe	Pro	Trp	Ser	Gly	Leu	Ile	Tyr	Ile	His	Cys	Asp	Asp	Gly
145					150					155					160

Gln	Lys	Lys	Ile	Val	Lys	Val	Gln	Ile	Arg	Glu	Asp	Leu	Thr	Gln	Val
				165					170					175	

Glu	Leu	Leu	Thr	Arg	Leu	Thr	Ser	Lys	Pro	Phe	Gly	Ile	Leu	Ser	Pro
			180					185					190		

Val	Ser	Glu	Pro	Ser	Val	Ser	His	Leu	Val	Lys	Pro	Met	Thr	Lys	Pro
		195					200					205			

Pro	Ser	Thr	Lys	Val	Glu	Ile	Arg	Asn	Lys	Ser	Ile	Thr	Phe	Pro	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4250

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      210                      215                      220
Thr Glu Pro Gly Glu Thr Ser Glu Ser Cys Leu Glu Leu Glu Asn His
225                      230                      235                      240

Gly Thr Thr Asp Val Lys Trp His Leu Ser Ser Leu Ala Pro Pro Tyr
      245                      250                      255

Val Lys Gly Val Asp Glu Ser Gly Asp Val Phe Arg Ala Thr Tyr Ala
      260                      265                      270

Ala Phe Arg Cys Ser Pro Ile Ser Gly Leu Leu Glu Ser His Gly Ile
      275                      280                      285

Gln Lys Val Ser Ile Thr Phe Leu Pro Arg Gly Arg Gly Asp Tyr Ala
      290                      295                      300

Gln Phe Trp Asp Val Glu Cys His Pro Leu Lys Glu Pro His Met Lys
305                      310                      315                      320

His Thr Leu Arg Phe Gln Leu Ser Gly Gln Ser Ile Glu Ala Glu Asn
      325                      330                      335

Glu Pro Glu Asn Ala Cys Leu Ser Thr Asp Ser Leu Ile Lys Ile Asp
      340                      345                      350

His Leu Val Lys Pro Arg Arg Gln Ala Val Ser Glu Ala Ser Ala Arg
      355                      360                      365

Ile Pro Asp Arg Gln Leu Asp Val Thr Ala Arg Gly Val Tyr Ala Pro
      370                      375                      380

Glu Asp Val Tyr Arg Ser Xaa Arg Leu Val Trp Gly Asn His Gly His
385                      390                      395                      400

Leu Lys Ala Ile Cys Glu Ile Ile Leu Leu Leu His Thr His
      405                      410

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&lt;210&gt; 4678

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4678

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Leu Tyr Ile Phe Phe Gly Lys Lys Tyr Leu Lys Thr Ser Ala Tyr Lys
  1                      5                      10                      15

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Asp Ser Gln Lys Cys Gln Arg Phe Ser Arg Lys Phe Ile Leu Tyr Ile
      20                      25                      30

```

## 4251

Ser Lys Met Ile Tyr Gln Cys Tyr Leu Pro Lys Glu Ile Ile Leu Phe  
                   35                                  40                                  45

Phe Pro Phe Gly Glu Ile Leu Ser Ser Asn Met Arg Ile Arg Ser Leu  
           50                                  55                                  60

Asp Ser Ile Ser Thr Tyr Thr Ile Lys Leu Asn Leu Glu Pro Glu Leu  
       65                                  70                                  75                                  80

Gly Cys Ser Val Pro  
                                   85

&lt;210&gt; 4679

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4679

Arg Ala Pro Cys Val Ser Leu Ser Ser Gln Val His Ser Gly Leu Leu  
       1                                  5                                  10                                  15

Leu His Pro Leu Leu Arg Gly Cys Pro Ala Gly Arg Gly Pro Leu Leu  
           20                                  25                                  30

Ser Gln Leu Gln Ser Ser Pro Gly His Leu Gln Ala Phe Val Gly Leu  
           35                                  40                                  45

Ser Gln Thr Trp Arg Glu Pro Gly Ala Ala Gly Ser Pro Phe His Leu  
       50                                  55                                  60

Ser Ser Ser Phe Thr Pro Gly Gly Gly Ser Ala Leu Val Val Ser Pro  
       65                                  70                                  75                                  80

Leu Gln Gly Ala His Leu His Val Phe Phe Trp Gly Glu Tyr Val Ala  
                                   85                                  90                                  95

Lys Leu Thr Asn Leu Gln Thr Pro Glu Ile Ala Ala Trp Ser Arg Ala  
           100                                  105                                  110

&lt;210&gt; 4680

&lt;211&gt; 561

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4252

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (169)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4680

Asn	Cys	His	Phe	Lys	Leu	Ser	Ser	His	Tyr	Leu	Asp	Gly	Tyr	Thr	Ser
1				5					10					15	

Pro	Gly	Phe	Lys	Met	Leu	Glu	Ala	Tyr	Asn	Leu	Thr	Glu	Lys	Asn	Phe
			20					25					30		

Ala	Ser	Val	Gln	Gly	Val	Ser	Leu	Glu	Ser	Gly	Ser	Phe	Pro	Ser	Tyr
			35				40					45			

Ser	Ala	Tyr	Arg	Ile	Gln	Lys	Asn	Ala	Phe	Val	Asn	Gln	Pro	Thr	Ala
	50					55					60				

Asp	Leu	His	Gln	Asn	Gly	Leu	Pro	Pro	Ser	Tyr	Thr	Ile	Ile	Leu	Leu
65					70					75				80	

Phe	Arg	Leu	Leu	Pro	Glu	Thr	Pro	Ser	Asp	Pro	Phe	Ala	Ile	Trp	Gln
				85					90					95	

Ile	Thr	Asp	Arg	Asp	Tyr	Lys	Pro	Gln	Val	Gly	Val	Ile	Ala	Asp	Xaa
		100						105					110		

Ser	Ser	Lys	Thr	Leu	Ser	Phe	Phe	Asn	Lys	Asp	Thr	Arg	Gly	Glu	Val
		115						120				125			

Gln	Thr	Val	Thr	Phe	Asp	Thr	Glu	Glu	Val	Lys	Thr	Leu	Phe	Tyr	Gly
	130					135					140				

Ser	Phe	His	Lys	Val	His	Ile	Val	Val	Thr	Ser	Lys	Ser	Val	Lys	Ile
145					150					155					160

Tyr	Ile	Asp	Cys	Tyr	Glu	Ile	Ile	Xaa	Lys	Xaa	Ile	Lys	Glu	Ala	Gly
			165						170					175	

Asn	Ile	Thr	Thr	Asp	Gly	Tyr	Glu	Ile	Leu	Gly	Lys	Leu	Leu	Lys	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4253

180	185	190
Glu Arg Lys Ser Ala Ala Phe Gln Ile Gln Ser Phe Asp Ile Val Cys		
195	200	205
Ser Pro Val Trp Thr Ser Arg Asp Arg Cys Cys Asp Ile Pro Ser Arg		
210	215	220
Arg Asp Glu Gly Lys Cys Pro Ala Phe Pro Asn Ser Cys Thr Cys Thr		
225	230	235 240
Gln Asp Ser Val Gly Pro Pro Gly Pro Pro Gly Pro Ala Gly Gly Pro		
245	250	255
Gly Ala Lys Gly Pro Arg Gly Glu Arg Gly Ile Ser Gly Ala Ile Gly		
260	265	270
Pro Pro Gly Pro Arg Gly Asp Ile Gly Pro Pro Gly Pro Gln Gly Pro		
275	280	285
Pro Gly Pro Gln Gly Pro Asn Gly Leu Ser Ile Pro Gly Glu Gln Gly		
290	295	300
Arg Gln Gly Met Lys Gly Asp Ala Gly Glu Pro Gly Leu Pro Gly Arg		
305	310	315 320
Thr Gly Thr Pro Gly Leu Pro Gly Pro Pro Gly Pro Met Gly Pro Pro		
325	330	335
Gly Asp Arg Gly Phe Thr Gly Lys Asp Gly Ala Met Gly Pro Arg Gly		
340	345	350
Pro Pro Gly Pro Pro Gly Ser Pro Gly Ser Pro Gly Val Thr Gly Pro		
355	360	365
Ser Gly Lys Pro Gly Lys Pro Gly Asp His Gly Arg Pro Gly Pro Ser		
370	375	380
Gly Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Ile Ala Ser Gln Asn		
385	390	395 400
Met Met Arg Ala Val Ala Arg Gln Val Cys Glu Gln Leu Ile Ser Gly		
405	410	415
Gln Met Asn Arg Phe Asn Gln Met Leu Asn Gln Ile Pro Asn Asp Tyr		
420	425	430
Gln Ser Ser Arg Asn Gln Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro		
435	440	445
Gly Ser Ala Gly Ala Arg Gly Glu Pro Gly Pro Gly Gly Arg Pro Gly		

## 4254

450                      455                      460  
 Phe Pro Gly Thr Pro Gly Met Gln Gly Pro Pro Gly Glu Arg Gly Leu  
 465                      470                      475                      480  
 Pro Gly Glu Lys Gly Glu Arg Gly Thr Gly Ser Ser Gly Pro Arg Gly  
                     485                      490                      495  
 Leu Pro Gly Pro Pro Gly Pro Gln Gly Glu Ser Arg Thr Gly Pro Pro  
                     500                      505                      510  
 Gly Ser Thr Gly Ser Arg Gly Pro Pro Gly Pro Pro Gly Arg Pro Gly  
                     515                      520                      525  
 Asn Ser Gly Ile Arg Gly Pro Pro Gly Pro Pro Gly Tyr Cys Asp Ser  
                     530                      535                      540  
 Ser Gln Cys Ala Ser Ile Pro Tyr Asn Gly Gln Ser Tyr Pro Gly Ser  
 545                      550                      555                      560

Gly

<210> 4681

<211> 38

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4681

Thr Ser Pro Thr Thr His Leu Ser Leu Val Pro Asn Ser Cys Ser Pro  
 1                      5                      10                      15  
 Gly Asp Pro Leu Val Leu Glu Arg Pro Pro Pro Arg Trp Ser Xaa Ser  
                     20                      25                      30  
 Phe Val Pro Leu Val Arg  
                     35

<210> 4682

<211> 309

<212> PRT

<213> Homo sapiens

## 4255

&lt;400&gt; 4682

```

Pro Ala Ile Ala Met Ala Arg Gly Lys Ala Lys Glu Glu Gly Ser Trp
 1           5           10           15

Lys Lys Phe Ile Trp Asn Ser Glu Lys Lys Glu Phe Leu Gly Arg Thr
      20           25           30

Gly Gly Ser Trp Phe Lys Ile Leu Leu Phe Tyr Val Ile Phe Tyr Gly
      35           40           45

Cys Leu Ala Gly Ile Phe Ile Gly Thr Ile Gln Val Met Leu Leu Thr
      50           55           60

Ile Ser Glu Phe Lys Pro Thr Tyr Gln Asp Arg Val Ala Pro Pro Gly
      65           70           75           80

Leu Thr Gln Ile Pro Gln Ile Gln Lys Thr Glu Ile Ser Phe Arg Pro
      85           90           95

Asn Asp Pro Lys Ser Tyr Glu Ala Tyr Val Leu Asn Ile Val Arg Phe
      100          105          110

Leu Glu Lys Tyr Lys Asp Ser Ala Gln Arg Asp Asp Met Ile Phe Glu
      115          120          125

Asp Cys Gly Asp Val Pro Ser Glu Pro Lys Glu Arg Gly Asp Phe Asn
      130          135          140

His Glu Arg Gly Glu Arg Lys Val Cys Arg Phe Lys Leu Glu Trp Leu
      145          150          155          160

Gly Asn Cys Ser Gly Leu Asn Asp Glu Thr Tyr Gly Tyr Lys Glu Gly
      165          170          175

Lys Pro Cys Ile Ile Ile Lys Leu Asn Arg Val Leu Gly Phe Lys Pro
      180          185          190

Lys Pro Pro Lys Asn Glu Ser Leu Glu Thr Tyr Pro Val Met Lys Tyr
      195          200          205

Asn Pro Asn Val Leu Pro Val Gln Cys Thr Gly Lys Arg Asp Glu Asp
      210          215          220

Lys Asp Lys Val Gly Asn Val Glu Tyr Phe Gly Leu Gly Asn Ser Pro
      225          230          235          240

Gly Phe Pro Leu Gln Tyr Tyr Pro Tyr Tyr Gly Lys Leu Leu Gln Pro
      245          250          255

Lys Tyr Leu Gln Pro Leu Leu Ala Val Gln Phe Thr Asn Leu Thr Met

```



## 4256

260                                      265                                      270  
 Asp Thr Glu Ile Arg Ile Glu Cys Lys Ala Tyr Gly Glu Asn Ile Gly  
           275                                      280                                      285  
 Tyr Ser Glu Lys Asp Arg Phe Gln Gly Arg Phe Asp Val Lys Ile Glu  
           290                                      295                                      300  
 Val Lys Ser Asp Ser  
 305

&lt;210&gt; 4683

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4683

Cys Phe Gly Phe Val Phe Pro Glu Ala Ala Ile Trp Ser Leu Ser Thr  
       1                                      5                                      10                                      15  
 Gly Met Ser Gln Thr Gly Pro Pro Met Ser Met Ala Ala Pro Ala Arg  
           20                                      25                                      30  
 Asn Ala Arg Val Ser Leu Pro Gly Leu Arg Val Asp Met Pro Ala Pro  
           35                                      40                                      45  
 Cys Gln Pro Pro Val Ala Trp Pro Gly Xaa Pro Glu Pro Val Cys Pro  
           50                                      55                                      60  
 Pro Gln Gly Trp Arg Ser Leu Trp Ala Pro Gly Gly Phe Pro Pro Gly  
           65                                      70                                      75                                      80  
 Asp Ser His Gly Ala Pro Cys Ser Arg Val Val Thr Val Ser Pro Glu  
           85                                      90                                      95  
 Met Thr Glu Thr Arg His Ser Pro Gly Pro Gln Arg Gly Gly Ala Ser  
           100                                      105                                      110  
 Arg Gln Thr Leu Gly Met Glu Leu Trp Cys Gly Leu Ser Cys Met Val  
           115                                      120                                      125  
 Ala Ser Ala Phe Cys Gln His Phe Trp Met Asp Ile Gly Thr Ile Ile  
           130                                      135                                      140

## 4257

Ser Ile Leu Ile His Gly Asp Phe Lys Thr Thr Ile Lys Leu Ile Gln  
 145 150 155 160

Ser Pro Leu Thr Leu Thr Asp Val Gly Ile Pro Leu Leu Glu Arg Glu  
 165 170 175

Leu

<210> 4684

<211> 439

<212> PRT

<213> Homo sapiens

<400> 4684

Ala Arg Asp Glu Met Gly His Asn Phe Gly Met Phe His Asp Asp Tyr  
 1 5 10 15

Ser Cys Lys Cys Pro Ser Thr Ile Cys Val Met Asp Lys Ala Leu Ser  
 20 25 30

Phe Tyr Ile Pro Thr Asp Phe Ser Ser Cys Ser Arg Leu Ser Tyr Asp  
 35 40 45

Lys Phe Phe Glu Asp Lys Leu Ser Asn Cys Leu Phe Asn Ala Pro Leu  
 50 55 60

Pro Thr Asp Ile Ile Ser Thr Pro Ile Cys Gly Asn Gln Leu Val Glu  
 65 70 75 80

Met Gly Glu Asp Cys Asp Cys Gly Thr Ser Glu Glu Cys Thr Asn Ile  
 85 90 95

Cys Cys Asp Ala Lys Thr Cys Lys Ile Lys Ala Thr Phe Gln Cys Ala  
 100 105 110

Leu Gly Glu Cys Cys Glu Lys Cys Gln Phe Lys Lys Ala Gly Met Val  
 115 120 125

Cys Arg Pro Ala Lys Asp Glu Cys Asp Leu Pro Glu Met Cys Asn Gly  
 130 135 140

Lys Ser Gly Asn Cys Pro Asp Asp Arg Phe Gln Val Asn Gly Phe Pro  
 145 150 155 160

Cys His His Gly Lys Gly His Cys Leu Met Gly Thr Cys Pro Thr Leu  
 165 170 175

Gln Glu Gln Cys Thr Glu Leu Trp Gly Pro Gly Thr Glu Val Ala Asp

## 4258

	180		185		190
Lys Ser Cys Tyr Asn Arg Asn Glu Gly Gly Ser Lys Tyr Gly Tyr Cys					
195		200		205	
Arg Arg Val Asp Asp Thr Leu Ile Pro Cys Lys Ala Asn Asp Thr Met					
210		215		220	
Cys Gly Lys Leu Phe Cys Gln Gly Gly Ser Asp Asn Leu Pro Trp Lys					
225		230		235	240
Gly Arg Ile Val Thr Phe Leu Thr Cys Lys Thr Phe Asp Pro Glu Asp					
	245		250		255
Thr Ser Gln Glu Ile Gly Met Val Ala Asn Gly Thr Lys Cys Gly Asp					
	260		265		270
Asn Lys Val Cys Ile Asn Ala Glu Cys Val Asp Ile Glu Lys Ala Tyr					
	275		280		285
Lys Ser Thr Asn Cys Ser Ser Lys Cys Lys Gly His Ala Val Cys Asp					
	290		295		300
His Glu Leu Gln Cys Gln Cys Glu Glu Gly Trp Ile Pro Pro Asp Cys					
305		310		315	320
Asp Asp Ser Ser Val Val Phe His Phe Ser Ile Val Val Gly Val Leu					
	325		330		335
Phe Pro Met Ala Val Ile Phe Val Val Val Ala Met Val Ile Arg His					
	340		345		350
Gln Ser Ser Arg Glu Lys Gln Lys Lys Asp Gln Arg Pro Leu Ser Thr					
	355		360		365
Thr Gly Thr Arg Pro His Lys Gln Lys Arg Lys Pro Gln Met Val Lys					
	370		375		380
Ala Val Gln Pro Gln Glu Met Ser Gln Met Lys Pro His Val Tyr Asp					
385		390		395	400
Leu Pro Val Glu Gly Asn Glu Pro Pro Ala Ser Phe His Lys Asp Thr					
	405		410		415
Asn Ala Leu Pro Pro Thr Val Phe Lys Asp Asn Pro Met Ser Thr Pro					
	420		425		430
Lys Asp Ser Asn Pro Lys Ala					
435					

## 4259

&lt;210&gt; 4685

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4685

Ala Gly Xaa Pro Ala Gly Xaa Gly Pro Glu Phe Pro Gly Arg Pro Thr  
1 5 10 15

Arg Pro Asp Asp Cys Asn Ser Pro Cys Tyr Arg Arg Glu Ile Ile Gly  
20 25 30

Ser Cys Leu Leu Thr Leu Cys Val Ala Leu Trp Ser Trp Ile Phe Leu  
35 40 45

Arg Phe Lys Lys Asn His Ser Phe Gly Thr Phe Asn  
50 55 60

&lt;210&gt; 4686

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4686

Gly Val Val Tyr Ser Tyr Phe Phe Phe Leu Leu Val Ile Leu Thr Asn  
1 5 10 15

Met Ile Pro Leu Leu Glu Ser Leu Ser Leu Pro His Pro Gln Lys Cys  
20 25 30

Leu Leu Phe Met Thr Val Thr Asn Tyr Ser Gly Gln Ile Ala Ser Phe  
35 40 45

## 4260

&lt;210&gt; 4687

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4687

Gly	Gly	Ser	Gly	Glu	Phe	Trp	Arg	Lys	Arg	Arg	Val	Leu	Leu	Glu	Leu
1				5				10						15	

Tyr	Arg	Pro	Cys	Phe	Ser	Gly	Pro	Arg	Lys	Val	Ala	Ser	Xaa	Ser	Ala
			20					25					30		

Ala	Ala	Ser	Thr	Leu	Ser	Glu	Pro	Pro	Arg	Arg	Thr	Gln	Glu	Ser	Arg
		35					40					45			

Thr	Arg	Thr	Arg	Ala	Leu	Gly	Leu	Pro	Thr	Leu	Pro	Met	Glu	Lys	Leu
	50					55					60				

Ala	Ala	Ser	Thr	Glu	Pro	Gln	Gly	Pro	Arg	Pro	Val	Leu	Gly	Arg	Glu
65					70					75					80

Ser	Val	Gln	Val	Pro	Asp	Asp	Gln	Asp	Phe	Arg	Ser	Phe	Arg	Ser	Glu
				85					90					95	

Cys	Glu	Ala	Glu	Val	Gly	Trp	Asn	Leu	Thr	Tyr	Ser	Arg	Ala	Gly	Val
		100						105					110		

Ser	Val	Trp	Val	Gln	Ala	Val	Glu	Met	Asp	Arg	Thr	Leu	His	Lys	Ile
		115					120					125			

Lys	Cys	Arg	Met	Glu	Cys	Cys	Asp	Val	Pro	Ala	Glu	Thr	Leu	Tyr	Asp
	130					135					140				

Val	Leu	His	Asp	Ile	Glu	Tyr	Arg	Lys	Lys	Trp	Asp	Ser	Asn	Val	Ile
145					150					155					160

Glu	Thr	Phe	Asp	Ile	Ala	Arg	Leu	Thr	Val	Asn	Ala	Asp	Val	Gly	Tyr
				165					170					175	

Tyr	Ser	Trp	Arg	Cys	Pro	Lys	Pro	Leu	Lys	Asn	Arg	Asp	Val	Ile	Thr
			180					185					190		

Leu	Arg	Ser	Trp	Leu	Pro	Met	Gly	Ala	Asp	Tyr	Ile	Ile	Met	Asn	Tyr
		195					200					205			

Ser	Val	Lys	His	Pro	Lys	Tyr	Pro	Pro	Arg	Lys	Asp	Leu	Val	Arg	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## 4261

210	215	220
Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser		
225	230	235 240
Cys Val Ile Thr Tyr Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro		
	245	250 255
Lys Trp Val Val Asn Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met		
	260	265 270
Lys Lys Met Tyr Lys Ala Cys Leu Lys Tyr Pro Glu Trp Lys Gln Lys		
	275	280 285
His Leu Pro His Phe Lys Pro Trp Leu His Pro Glu Gln Ser Pro Leu		
	290	295 300
Pro Ser Leu Ala Leu Ser Glu Leu Ser Val Gln His Ala Asp Ser Leu		
	305	310 315 320
Glu Asn Ile Asp Glu Ser Ala Val Ala Glu Ser Arg Glu Glu Arg Met		
	325	330 335
Gly Gly Ala Gly Gly Glu Gly Ser Asp Asp Asp Thr Ser Leu Thr		
	340	345 350

&lt;210&gt; 4688

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4688

Met Gly Val Tyr Asn Phe Tyr Val Ser Cys Phe Gln Gln Leu Cys Leu
1 5 10 15

Gly Trp Ser Leu Ala Gly Gly Asp Arg Ile Ser Glu Trp His Ile Ile
20 25 30

Ser Ile Leu His Met Ser Lys Leu Arg His Arg Glu Leu Asp Asn Leu
35 40 45

Pro Arg Leu His Arg Leu
50

&lt;210&gt; 4689

&lt;211&gt; 65

&lt;212&gt; PRT

## 4262

&lt;213&gt; Homo sapiens

&lt;400&gt; 4689

Glu Gln Tyr Leu Asp Leu Met Leu Ser Glu Cys Pro Ala Leu Leu Pro  
 1 5 10 15  
 Ser Ala Trp Met Ser Glu Cys Phe Tyr Ala Arg Gly Asp Ser Ser Gln  
 20 25 30  
 Leu Arg Val Cys Phe Phe Gln Arg Ser Ser Gln Val Ser Phe Ala Lys  
 35 40 45  
 Leu Gly His Leu Ala Gln Val Phe Leu Glu Ser Gly Val His Val Thr  
 50 55 60  
 Asp  
 65

&lt;210&gt; 4690

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4690

Leu Leu Leu Ile Ser Tyr Tyr Cys Lys Ala Leu Ser Pro Ala Ser Gly  
 1 5 10 15  
 Ser Leu Cys Val Ile Glu Leu Lys Ile Ile Ala Val Tyr Asn Thr  
 20 25 30

&lt;210&gt; 4691

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4691

Lys Val Gln Thr Leu Phe Gly Thr Thr Arg Ser Phe His Leu Ala Lys  
 1 5 10 15  
 Thr Ala Asp Pro Gly Ala Arg Ala Gln Gly Ser Pro Gly Cys Gly Glu  
 20 25 30  
 Glu Trp Leu Trp His Leu Pro Ile Leu Trp Val Leu Gln Ala Leu Leu  
 35 40 45  
 Glu Val Phe Gly Leu Phe Gly Leu Trp Ser Phe Ser Pro Gly Thr Glu  
 50 55 60

## 4263

Val Glu Met Gly Arg Arg Pro Gly Gln Cys Ser Trp Lys Leu Thr Leu  
65 70 75 80

His Phe Ser Ala Pro Val Phe Gln Phe Lys Ser Ala Phe Ser Ser Ala  
85 90 95

Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala Thr Gly  
100 105 110

Glu Val Trp Gly Gln Leu Val Ile Arg Lys Gly Met Glu Asp Val  
115 120 125

<210> 4692

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4692

Ser Tyr Val His Lys Ser Leu Ser Trp Lys Pro Leu Leu Ser Phe Ile  
1 5 10 15

Ser Pro Ser Ile Pro Ile Thr Phe Leu Arg Asn Val Thr Trp Val Met  
20 25 30

Val Asn Leu Cys Arg His Lys Asp Pro Pro Pro Pro Met Glu Thr Ile  
35 40 45

Gln Glu Ile Leu Pro Ala Leu Cys Val Leu Ile His His Thr Asp Val  
50 55 60

Asn Ile Leu Val Asp Thr Val Trp Ala Leu Ser Tyr Leu Thr Asp Ala  
65 70 75 80

Gly Asn Glu Gln Ile Gln Met Val Ile Asp Ser Gly Ile Val Pro His  
85 90 95

Leu Val Pro Leu Leu Ser His Gln Glu Val Lys Val Gln Thr Ala Ala  
100 105 110

Leu Arg Ala Val Gly Asn Ile Val Thr Gly Thr Asp Glu Gln Thr Gln  
115 120 125

Val Val Leu Asn Cys Asp Ala Leu Ser His Phe Pro Ala Leu Leu Thr  
130 135 140

His Pro Lys Glu Lys Ile Asn Lys Glu Ala Val Trp Phe Leu Ser Asn  
145 150 155 160



## 4264

```

Ile Thr Ala Gly Asn Gln Gln Gln Val Gln Ala Val Ile Asp Ala Asn
      165                      170                      175

Leu Val Pro Met Ile Ile His Leu Leu Asp Lys Gly Asp Phe Gly Thr
      180                      185                      190

Gln Lys Glu Ala Ala Trp Ala Ile Ser Asn Leu Thr Ile Ser Gly Arg
      195                      200                      205

Lys Asp Gln Val Ala Tyr Leu Ile Gln Gln Asn Val Ile Pro Pro Phe
      210                      215                      220

Cys Asn Leu Leu Thr Val Lys Asp Ala Gln Val Val Gln Val Val Leu
      225                      230                      235                      240

Asp Gly Leu Ser Asn Ile Leu Lys Met Ala Glu Asp Glu Ala Glu Thr
      245                      250                      255

Ile Gly Asn Leu Ile Glu Glu Cys Gly Gly Leu Glu Lys Ile Glu Gln
      260                      265                      270

Leu Gln Asn His Glu Asn Glu Asp Ile Tyr Lys Leu Ala Tyr Glu Ile
      275                      280                      285

Ile Asp Gln Phe Phe Ser Ser Asp Asp Ile Asp Glu Asp Pro Ser Leu
      290                      295                      300

Val Pro Glu Ala Ile Gln Gly Gly Thr Phe Gly Phe Asn Ser Ser Ala
      305                      310                      315                      320

Asn Val Pro Thr Glu Gly Phe Gln Phe
      325

```

&lt;210&gt; 4693

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4693

```

Met Leu Ser Val Ser Leu Val Phe Ile Ser Ala Ser Ser Ser Leu Leu
  1             5             10             15

```

```

Gly Tyr Ile Val Val Leu Phe Pro Val Xaa His Leu Ser Leu Val Phe
      20             25             30

```

## 4265

His Tyr Gly Lys Phe Ile Lys Lys Leu Ala Pro Leu Leu Ser Ser Ser  
35 40 45

Asn Ala His Lys Glu Met Glu Asp Ile  
50 55

<210> 4694

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4694

Gly Lys Gly Ser Lys Pro Leu Lys Met Cys Phe Val Ile Arg Ser Ala  
1 5 10 15

Leu Gln Thr Lys Tyr Ala Arg Cys Pro Phe Glu Ala Ser Glu Leu Ser  
20 25 30

Leu Gln Gly Phe Lys Ala Thr Phe Gln Gln Glu Lys Ala Leu Arg Ala  
35 40 45

Arg Arg Phe Ile Lys Glu Gly Lys Ala Leu Val Ser Leu Leu Arg Lys  
50 55 60

Val Gly Phe Leu Ala  
65

<210> 4695

<211> 461

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (312)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (406)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4695

Gly Ser Pro Arg Leu Leu Gly Ala Ala Ala Leu Ala Leu Gly Gly Ala  
1 5 10 15

## 4266

Leu Gly Leu Tyr His Thr Ala Arg Trp His Leu Arg Ala Gln Asp Leu  
                     20                    25                    30

His Ala Glu Arg Ser Ala Ala Gln Leu Ser Leu Ser Ser Arg Leu Gln  
                     35                    40                    45

Leu Thr Leu Tyr Gln Tyr Lys Thr Cys Pro Phe Cys Ser Lys Val Arg  
                     50                    55                    60

Ala Phe Leu Asp Phe His Ala Leu Pro Tyr Gln Val Val Glu Val Asn  
                     65                    70                    75                    80

Pro Val Arg Arg Ala Glu Ile Lys Phe Ser Ser Tyr Arg Lys Val Pro  
                     85                    90                    95

Ile Leu Val Ala Gln Glu Gly Glu Ser Ser Gln Gln Leu Asn Asp Ser  
                     100                    105                    110

Ser Val Ile Ile Ser Ala Leu Lys Thr Tyr Leu Val Ser Gly Gln Pro  
                     115                    120                    125

Leu Glu Glu Ile Ile Thr Tyr Tyr Pro Ala Met Lys Ala Val Asn Glu  
                     130                    135                    140

Gln Gly Lys Glu Val Thr Glu Phe Gly Asn Lys Tyr Trp Leu Met Leu  
                     145                    150                    155                    160

Asn Glu Lys Glu Ala Gln Gln Val Tyr Gly Gly Lys Glu Ala Arg Thr  
                     165                    170                    175

Glu Glu Met Lys Trp Arg Gln Trp Ala Asp Asp Trp Leu Val His Leu  
                     180                    185                    190

Ile Ser Pro Asn Val Tyr Arg Thr Pro Thr Glu Ala Leu Ala Ser Phe  
                     195                    200                    205

Asp Tyr Ile Val Arg Glu Gly Lys Phe Gly Ala Val Glu Gly Ala Val  
                     210                    215                    220

Ala Lys Tyr Met Gly Ala Ala Ala Met Tyr Leu Ile Ser Lys Arg Leu  
                     225                    230                    235                    240

Lys Ser Arg His Arg Leu Gln Asp Asn Val Arg Glu Asp Leu Tyr Glu  
                     245                    250                    255

Ala Ala Asp Lys Trp Val Ala Ala Val Gly Lys Asp Arg Pro Phe Met  
                     260                    265                    270

Gly Gly Gln Lys Pro Asn Leu Ala Asp Leu Ala Val Tyr Gly Val Leu  
                     275                    280                    285

## 4267

Arg Val Met Glu Gly Leu Asp Ala Phe Asp Asp Leu Met Gln His Thr  
 290 295 300  
 His Ile Gln Pro Trp Tyr Leu Xaa Val Glu Arg Ala Ile Thr Glu Ala  
 305 310 315 320  
 Pro Gln Arg Thr Glu Cys Pro Pro Arg Arg Ala Glu Gly Arg Gln Ala  
 325 330 335  
 Glu Asp Ala Ser Cys Pro Arg Pro Gly Pro Leu Gly Pro Ala Pro Gly  
 340 345 350  
 Asp Thr Gly Trp Gly Gln Asp His Ser Ala Pro Cys Pro Arg Thr Pro  
 355 360 365  
 Thr Ser Pro Leu Ala Ser Asn Thr Gly His Leu Leu Gly Leu Arg Asp  
 370 375 380  
 Val Arg Asp Glu Phe Gln Pro Cys His Cys Pro Gly Ala Thr Pro Pro  
 385 390 395 400  
 Cys Pro Cys Leu Pro Xaa Cys Arg Pro Ser Ser Trp Thr Leu Ser Gly  
 405 410 415  
 Cys Pro Met Ala Thr Ser Cys Gly Trp Gly Pro Ser Thr Gly Gln Gln  
 420 425 430  
 Asp Gly Leu Phe Ser Val Glu Ser His Pro Trp Val Pro Leu Val Pro  
 435 440 445  
 Thr Leu Pro Lys Pro Pro Gly Thr Gly Thr Cys Leu Gln  
 450 455 460

&lt;210&gt; 4696

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4696

Thr Ser Arg Gln Asn Lys Thr Glu Asn Leu Leu Glu Ser Arg Met Met  
 1 5 10 15  
 Asp Pro Cys Ser Val Gly Val Gln Leu Arg Thr Thr Asn Glu Cys His  
 20 25 30  
 Lys Thr Tyr Tyr Thr Arg His Thr Gly Phe Lys Thr Leu Gln Glu Leu  
 35 40 45  
 Ser Ser Asn Asp Met Leu Leu Leu Gln Leu Arg Thr Gly Met Thr Leu

## 4268

50	55	60
Ser Gly Asn Asn Thr Ile Cys Phe His His Val Lys Ile Tyr Ile Asp		
65	70	75 80
Arg Phe Glu Asp Leu Gln Lys Ser Cys Cys Asp Pro Phe Asn Ile His		
	85	90 95
Lys Lys Leu Ala Lys Lys Asn Leu His Val Ile Asp Leu Asp Asp Ala		
	100	105 110
Thr Phe Leu Ser Ala Lys Phe Gly Arg Gln Leu Val Pro Gly Trp Lys		
	115	120 125
Leu Cys Pro Lys Cys Thr Gln Ile Ile Asn Gly Ser Val Asp Val Asp		
	130	135 140
Thr Glu Asp Arg Gln Lys Arg Lys Pro Glu Ser Asp Gly Arg Thr Ala		
	145	150 155 160
Lys Ala Leu Arg Ser Leu Gln Phe Thr Asn Pro Gly Arg Gln Thr Glu		
	165	170 175
Phe Ala Pro Glu Thr Gly Lys Arg Glu Lys Arg Arg Leu Thr Lys Asn		
	180	185 190
Ala Thr Ala Gly Ser Asp Arg Gln Val Ile Pro Ala Lys Ser Lys Val		
	195	200 205
Tyr Asp Ser Gln Gly Leu Leu Ile Phe Ser Gly Met Asp Leu Cys Asp		
	210	215 220
Cys Leu Asp Glu Asp Cys Leu Gly Cys Phe Tyr Ala Cys Pro Ala Cys		
	225	230 235 240
Gly Ser Thr Lys Cys Gly Ala Glu Cys Arg Cys Asp Arg Lys Trp Leu		
	245	250 255
Tyr Glu Gln Ile Glu Ile Glu Gly Gly Glu Ile Ile His Asn Lys His		
	260	265 270
Ala Gly		

&lt;210&gt; 4697

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4269

<220>  
 <221> SITE  
 <222> (19)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (24)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (51)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (113)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4697  
 Leu Gly Asp Glu Thr Gly Ser Ser Met Thr His Leu Ile Glu Tyr Asp  
     1                  5                  10                  15  
 Arg His Xaa Lys Ser Arg Leu Xaa Pro Leu Gln His Leu Tyr Leu Leu  
           20                  25                  30  
 Pro Ala Asp His Ser Arg Asn Ala Ala Glu Arg Phe Pro Gly Ala Trp  
       35                  40                  45  
 Phe Gln Xaa Pro Thr Val Asp Ser Glu Ala Ser Ala Phe Ala Gly Gly  
       50                  55                  60  
 Leu Pro Val Ile Phe Trp Ser Trp Ala Gly Leu Val Gly Phe Pro Phe  
       65                  70                  75                  80  
 Val Trp Pro Val Ser Xaa Cys Leu Asn Pro Leu Ser Phe Ile Lys Ser  
           85                  90                  95  
 Lys Thr Lys Glu Lys Lys Lys Lys Lys Lys Lys Lys Phe Gly Gly Gly  
      100                 105                 110  
 Xaa Arg Tyr Pro Ile Gly Pro Leu Gly Gly  
      115                 120

## 4270

&lt;210&gt; 4698

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4698

Asn	Ser	Gly	Ser	His	Asn	Ile	Val	Ala	Ser	Arg	Ser	Xaa	Xaa	Ile	Phe
1				5					10					15	

Asp	Gln	Asp	Asp	Xaa	Asn	Gly	Leu	Thr	Trp	Val	Phe	Ile	Val	Tyr	Gln
		20						25					30		

Ile	Leu	His	Thr	Lys	Glu	Trp	Lys	Tyr	Ser	Phe	Thr	Lys	Phe	Leu	Arg
		35					40					45			

Lys	Ile	Phe	Leu	Pro	Ile	Tyr	His	Asn	Tyr	Arg	Met	Asp	Ile	Cys	Phe
	50					55					60				

&lt;210&gt; 4699

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

## 4271

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (83)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4699

Gly	Ala	Arg	Leu	Gly	Ala	Leu	Gln	Ala	Ala	Pro	Gln	Pro	Gly	Thr	Pro
1				5					10					15	

Thr	Pro	Leu	Arg	Ser	Pro	Gln	Ala	Ser	Gly	Pro	His	Pro	Ser	Glu	Ala
			20					25					30		

Gln	Gly	Ser	Pro	Val	His	Ala	Gly	Phe	Ser	Pro	Gly	Pro	Met	Ser	Phe
		35					40					45			

Leu	Ala	Gly	Leu	Gly	Leu	Ala	Val	Gly	Leu	Ala	Leu	Leu	Leu	Tyr	Cys
	50					55					60				

Tyr	Pro	Pro	Asp	Pro	Lys	Gly	Leu	Pro	Gly	Thr	Arg	Arg	Val	Xaa	Gly
65					70					75					80

Phe	Xaa	Xaa	Val	Ile	Ile	Asp	Arg	His	Val	Ser	Arg	Tyr	Leu	Leu	Ala
				85					90						95

Phe	Leu	Ala	Asp	Asp	Leu	Gly	Gly	Leu
			100					105

&lt;210&gt; 4700

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (149)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4700

Gly	Ala	Ile	Gly	Thr	Ser	Ser	Pro	Ala	Leu	Leu	Glu	Cys	Gln	Glu	Gly
1					5					10				15	



## 4272

Val Gly Pro Ala Arg Pro Ser Leu Leu Val Pro Pro Pro Pro Arg Xaa  
                   20                  25                  30  
 Arg Arg Leu Asp Leu Ala Arg Thr Leu Pro Ala Glu Arg Thr Asp Ser  
           35                  40                  45  
 Gln Ser Leu Tyr Ile Val Tyr Ile Ala Leu Pro Gly Arg Thr Pro Arg  
       50                  55                  60  
 Pro Ala Leu Ala Phe Ala Phe Leu Met Pro Ala Cys Cys Asn Arg Pro  
   65                  70                  75                  80  
 Ser Pro Arg Pro Ser Pro Ala His Leu Thr Ala Ser Ser Val Leu Arg  
                   85                  90                  95  
 Arg Gln Arg His Val Leu Ala Ala Ser Ala Ala Ser Pro Cys Gln Trp  
           100                  105                  110  
 Ser Gly Leu Arg Val Ala His Ser Leu Arg Gln Val Val Ser Leu Cys  
       115                  120                  125  
 Pro Arg Cys Thr Gly Ser Cys Pro Phe Ser Gly Ala Cys Ala Ser Ser  
       130                  135                  140  
 Leu Pro Ser Pro Xaa Ser Cys Pro His Ser His Ser Gly Ser Trp Gly  
   145                  150                  155                  160  
 Thr Trp Ser Gln Gly Arg Pro Cys Ser Ser Thr Glu Val Ala Gly Leu  
           165                  170                  175  
 Ala Leu Trp Pro Thr Asp Phe Leu Ser Cys Leu Leu Asp Ala Ser Glu  
           180                  185                  190  
 Leu Gln Thr Gln Gly Ser His Gly Phe Ser Phe Thr Pro Thr Gly Phe  
       195                  200                  205  
 Ser Ser Asn Arg Lys Val Gly Val Gly Ser Cys Arg Asp Gly Ala Gly  
       210                  215                  220  
 Arg Gly Ala Met Gly Gly Leu Phe  
   225                  230

&lt;210&gt; 4701

&lt;211&gt; 665

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

## 4273

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (107)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4701

Asp	Val	His	His	Arg	Ala	Glu	Cys	Arg	Ala	Asp	Arg	His	Arg	Arg	Glu
1				5					10					15	

Xaa	Leu	Tyr	Asp	Met	Phe	Val	Asn	Phe	Pro	Asp	Gln	Pro	Val	Val	Trp
			20					25					30		

Arg	Glu	Ile	Ser	Ile	Ile	Thr	Ser	Ala	Leu	Arg	Asn	Asp	Ser	Gln	Asp
		35					40					45			

Lys	Gln	Thr	Gln	Phe	Leu	Arg	Ser	Leu	Phe	Glu	Thr	Leu	Pro	Gly	Arg
	50					55					60				

Val	Gln	Cys	Glu	Met	Leu	Leu	Lys	Val	Thr	Glu	Gln	Cys	Phe	Asn	Thr
65					70					75					80

Leu	Glu	Arg	Ser	Glu	Met	Leu	Leu	Leu	Leu	Arg	Arg	Phe	Pro	Glu	
				85					90				95		

Thr	Val	Val	Gln	His	Gly	Val	Gly	Leu	Gly	Xaa	Ala	Leu	Leu	Xaa	Ala
			100					105					110		

Glu	Thr	Ile	Xaa	Glu	Gln	Glu	Ser	Pro	Val	Asn	Cys	Phe	Arg	Lys	Leu
		115					120					125			

Phe	Val	Cys	Asp	Val	Leu	Pro	Leu	Ile	Ile	Asn	Asn	His	Asp	Val	Arg
	130					135					140				

Leu	Pro	Ala	Asn	Leu	Leu	Tyr	Lys	Tyr	Leu	Asn	Lys	Ala	Ala	Glu	Phe
145					150					155					160

Tyr	Ile	Asn	Tyr	Val	Thr	Arg	Ser	Thr	Gln	Ile	Glu	Asn	Gln	His	Gln
				165					170					175	

## 4274

Gly	Ala	Gln	Asp	Thr	Ser	Asp	Leu	Met	Ser	Pro	Ser	Lys	Arg	Ser	Ser		
			180					185					190				
Gln	Lys	Tyr	Ile	Ile	Glu	Gly	Leu	Thr	Glu	Lys	Ser	Ser	Gln	Ile	Val		
		195					200					205					
Asp	Pro	Trp	Glu	Arg	Leu	Phe	Lys	Ile	Leu	Asn	Val	Val	Gly	Met	Arg		
	210					215					220						
Cys	Glu	Trp	Gln	Met	Asp	Lys	Gly	Arg	Arg	Ser	Tyr	Gly	Asp	Ile	Leu		
225					230					235					240		
His	Arg	Met	Lys	Asp	Leu	Cys	Arg	Tyr	Met	Asn	Asn	Phe	Asp	Ser	Glu		
				245					250					255			
Ala	His	Ala	Lys	Tyr	Lys	Asn	Gln	Val	Val	Tyr	Ser	Thr	Met	Leu	Val		
			260					265					270				
Phe	Phe	Lys	Asn	Ala	Phe	Gln	Tyr	Val	Asn	Ser	Ile	Gln	Pro	Ser	Leu		
		275					280					285					
Phe	Gln	Gly	Pro	Asn	Ala	Pro	Ser	Gln	Val	Pro	Leu	Val	Leu	Leu	Glu		
	290					295					300						
Asp	Val	Ser	Asn	Val	Tyr	Gly	Asp	Val	Glu	Ile	Asp	Arg	Asn	Lys	His		
305					310					315					320		
Ile	His	Lys	Lys	Arg	Lys	Leu	Ala	Glu	Gly	Arg	Glu	Lys	Thr	Met	Ser		
				325					330					335			
Ser	Asp	Asp	Glu	Asp	Cys	Ser	Ala	Lys	Gly	Arg	Asn	Arg	His	Ile	Val		
			340					345					350				
Val	Asn	Lys	Ala	Glu	Leu	Ala	Asn	Ser	Thr	Glu	Val	Leu	Glu	Ser	Phe		
		355					360					365					
Lys	Leu	Ala	Arg	Glu	Ser	Trp	Glu	Leu	Leu	Tyr	Ser	Leu	Glu	Phe	Leu		
	370					375					380						
Asp	Lys	Glu	Phe	Thr	Arg	Ile	Cys	Leu	Ala	Trp	Lys	Thr	Asp	Thr	Trp		
385					390					395					400		
Leu	Trp	Leu	Arg	Ile	Phe	Leu	Thr	Asp	Met	Ile	Ile	Tyr	Gln	Gly	Gln		
				405					410					415			
Tyr	Lys	Lys	Ala	Ile	Ala	Ser	Leu	His	His	Leu	Ala	Ala	Leu	Gln	Gly		
			420					425					430				
Ser	Ile	Ser	Gln	Pro	Gln	Ile	Thr	Gly	Gln	Gly	Thr	Leu	Glu	His	Gln		
		435					440					445					

## 4275

Arg Ala Leu Ile Gln Leu Ala Thr Cys His Phe Ala Leu Gly Glu Tyr  
 450 455 460  
 Arg Met Thr Cys Glu Lys Val Leu Asp Leu Met Cys Tyr Met Val Leu  
 465 470 475 480  
 Pro Ile Gln Asp Gly Gly Lys Ser Gln Glu Glu Pro Ser Lys Val Lys  
 485 490 495  
 Pro Lys Phe Arg Lys Gly Ser Asp Leu Lys Leu Leu Pro Cys Thr Ser  
 500 505 510  
 Lys Ala Ile Met Pro Tyr Cys Leu His Leu Met Leu Ala Cys Phe Lys  
 515 520 525  
 Leu Arg Ala Phe Thr Asp Asn Arg Asp Asp Met Ala Leu Gly His Val  
 530 535 540  
 Ile Val Leu Leu Gln Gln Glu Trp Pro Arg Gly Glu Asn Leu Phe Leu  
 545 550 555 560  
 Lys Ala Val Asn Lys Ile Cys Gln Gln Gly Asn Phe Gln Tyr Glu Asn  
 565 570 575  
 Phe Phe Asn Tyr Val Thr Asn Ile Asp Met Leu Glu Glu Phe Ala Tyr  
 580 585 590  
 Leu Arg Thr Gln Glu Gly Gly Lys Ile His Leu Glu Leu Leu Pro Asn  
 595 600 605  
 Gln Gly Met Leu Ile Lys His His Thr Val Thr Arg Gly Ile Thr Lys  
 610 615 620  
 Gly Val Lys Glu Asp Phe Arg Leu Ala Met Glu Arg Gln Val Ser Arg  
 625 630 635 640  
 Cys Gly Glu Asn Leu Met Val Val Leu His Arg Phe Cys Ile Asn Glu  
 645 650 655  
 Lys Ile Leu Leu Leu Gln Thr Leu Thr  
 660 665

&lt;210&gt; 4702

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4702

## 4276

Val Lys Ser Glu Asp Leu Asn Glu Val Thr Pro Lys Leu Ser Gln Ser  
 1 5 10 15  
 His Val Phe Leu Thr Leu Gly Ile Ser Asn Ser Ile Tyr Thr Ala Phe  
 20 25 30  
 Phe Lys Cys Asn Phe Gln Arg Cys Leu Leu Pro His Pro Leu Leu Leu  
 35 40 45  
 Ser Ile Ile Ile Asp Phe Trp Arg Leu Thr Lys Gln Ala Ile Pro Lys  
 50 55 60  
 Phe Ser Pro Arg Lys Val Ser Trp Ile Lys Trp Phe Leu Arg Thr Leu  
 65 70 75 80  
 Arg Val Tyr Ile Leu  
 85

&lt;210&gt; 4703

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4703

Cys Asn Leu Tyr Ser Trp Arg Asn Lys Ile Phe Ile Trp Asp Tyr Phe  
 1 5 10 15  
 Leu Gln Pro Phe Asn Lys His Leu Leu Tyr Ala Thr Lys Arg Gln Ala  
 20 25 30  
 Arg Arg Trp Ala Leu Gln Thr Gln Trp Leu Val Ala Val Trp Thr Trp  
 35 40 45  
 Ser Leu Leu Ala Trp Asn Pro Ser Leu Pro Asn Met Gln Ser Pro His  
 50 55 60  
 Leu Lys Ala Ser Leu Cys Pro Phe Ser Asp Ala Leu Phe Arg Asn Ala  
 65 70 75 80  
 Xaa Pro Leu Tyr Ser Glu Ile Arg Arg His Lys Thr Ser Ser Lys Ser  
 85 90 95  
 Leu Leu Trp

4277

&lt;210&gt; 4704

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4704

Leu Gly Ala Val Gly Ala Xaa Leu Arg Gly Leu Arg Gly Cys Arg Gly  
 1 5 10 15

Ala Arg Gly Ala Gly Gly Lys Ala His Leu Gly Trp Pro Trp Arg Ala  
 20 25 30

Gly Gly Asp Met Glu Asp Gly Val Leu Lys Glu Gly Phe Leu Val Lys  
 35 40 45

Arg Gly His Ile Val His Asn Trp Lys Ala Arg Trp Phe Ile Leu Arg  
 50 55 60

Gln Asn Thr Leu Val Tyr Tyr Lys Leu Glu Gly Gly Arg Arg Val Thr  
 65 70 75 80

Pro Pro Lys Gly Arg Ile Leu Leu Asp Gly Cys Thr Ile Thr Cys Pro  
 85 90 95

Cys Leu Glu Tyr Glu Asn Arg Pro Leu Leu Ile Lys Leu Lys Thr Gln  
 100 105 110

Thr Ser Thr Glu Tyr Phe Leu Glu Ala Cys Ser Arg Glu Glu Arg Asp  
 115 120 125

Ala Trp Ala Phe Glu Ile Thr Gly Ala Ile His Ala Gly Gln Pro Gly  
 130 135 140

Lys Val Gln Gln Leu His Ser Leu Arg Asn Ser Phe Lys Leu Pro Pro  
 145 150 155 160

His Ile Ser Leu His Arg Ile Val Asp Lys Met His Asp Ser Asn Thr  
 165 170 175

Gly Ile Arg Ser Ser Pro Asn Met Glu Gln Gly Ser Thr Tyr Lys Lys  
 180 185 190

Thr Phe Leu Gly Ser Ser Trp Trp Thr Gly Ser Ser Pro Thr Ala Ser

## 4278

195                                      200                                      205  
 Arg Ala Ala Val Trp Arg Arg  
 210                                      215

<210> 4705  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4705  
 Asp Leu Pro Pro Leu Leu Val Phe Xaa Ala Val Lys Thr Leu Ser Thr  
 1                                      5                                      10                                      15  
 Val Thr Tyr Phe Leu Ser Gln Ala Ala Ser His Leu Val Pro Cys Ala  
 20                                      25                                      30  
 Asp Ser Ser Thr Val Ala Arg Ile Gln Tyr Glu Ser Arg Gly Asp Arg  
 35                                      40                                      45  
 Arg Met Val Gly Ala Ala Gly Phe Ser Thr Tyr Pro Ser His Gln Gly  
 50                                      55                                      60  
 Pro Asp Ala Leu Xaa Pro Ala Pro Ser Ala His Pro Cys Ala Gln Leu  
 65                                      70                                      75                                      80  
 Glu Gly Cys Met Ala Arg Ser Pro Leu Phe Arg Trp Val Glu Thr Leu  
 85                                      90                                      95  
 Met Ile Pro Ala Pro Pro Xaa Arg Ala Pro Ala Thr Glu Gln Ala Leu  
 100                                      105                                      110

4279

&lt;210&gt; 4706

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4706

Gln	Ser	Arg	His	Gln	Leu	Ala	Trp	Leu	Leu	Gly	Met	Ala	Ile	Gly	Gly
1				5				10						15	

Ser	Xaa	Cys	Gly	Pro	Leu	Leu	Ala	Asn	Cys	Met	Gln	Pro	Pro	Thr	Leu
			20					25					30		

Arg	Met	Phe	Ala	Trp	Ala	Glu	Asn	Ala	Glu	Thr	Leu	Trp	Pro	Asp	Leu
		35					40					45			

Thr	Val	Ser	Thr	Trp	Gln	Trp	Ala	Leu	Trp	Thr	Gln	His	Phe	Ser	
	50					55					60				

&lt;210&gt; 4707

&lt;211&gt; 578

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4707

Pro	Thr	Ala	Ser	Ala	Gly	Ala	Arg	Trp	Ser	His	Lys	Thr	Ala	Ser	Val
1				5				10						15	

Leu	Gln	Ser	Val	Ser	Leu	Glu	Val	Thr	Arg	Ala	Thr	Ala	Gly	Met	Val
			20					25					30		

Leu	Ala	Glu	Leu	Tyr	Val	Ser	Asp	Arg	Glu	Gly	Ser	Asp	Ala	Thr	Gly
		35					40					45			

Asp	Gly	Thr	Lys	Glu	Lys	Pro	Phe	Lys	Thr	Gly	Leu	Lys	Ala	Leu	Met
	50					55					60				

Thr	Val	Gly	Lys	Glu	Pro	Phe	Pro	Thr	Ile	Tyr	Val	Asp	Ser	Gln	Lys
	65				70					75					80

Glu	Asn	Glu	Arg	Trp	Asn	Val	Ile	Ser	Lys	Ser	Gln	Leu	Lys	Asn	Ile
				85					90					95	



## 4280

Lys Lys Met Trp His Arg Glu Gln Met Lys Ser Glu Ser Arg Glu Lys  
 100 105 110  
 Lys Glu Ala Glu Asp Ser Leu Arg Arg Glu Lys Asn Leu Glu Glu Ala  
 115 120 125  
 Lys Lys Ile Thr Ile Lys Asn Asp Pro Ser Leu Pro Glu Pro Lys Cys  
 130 135 140  
 Val Lys Ile Gly Ala Leu Glu Gly Tyr Arg Gly Gln Arg Val Lys Val  
 145 150 155 160  
 Phe Gly Trp Val His Arg Leu Arg Arg Gln Gly Lys Asn Leu Met Phe  
 165 170 175  
 Leu Val Leu Arg Asp Gly Thr Gly Tyr Leu Gln Cys Val Leu Ala Asp  
 180 185 190  
 Glu Leu Cys Gln Cys Tyr Asn Gly Val Leu Leu Ser Thr Glu Ser Ser  
 195 200 205  
 Val Ala Val Tyr Gly Met Leu Asn Leu Thr Pro Lys Gly Lys Gln Ala  
 210 215 220  
 Pro Gly Gly His Glu Leu Ser Cys Asp Phe Trp Glu Leu Ile Gly Leu  
 225 230 235 240  
 Ala Pro Ala Gly Gly Ala Asp Asn Leu Ile Asn Glu Glu Ser Asp Val  
 245 250 255  
 Asp Val Gln Leu Asn Asn Arg His Met Met Ile Arg Gly Glu Asn Met  
 260 265 270  
 Ser Lys Ile Leu Lys Ala Arg Ser Met Val Thr Arg Cys Phe Arg Asp  
 275 280 285  
 His Phe Phe Asp Arg Gly Tyr Tyr Glu Val Thr Pro Pro Thr Leu Val  
 290 295 300  
 Gln Thr Gln Val Glu Gly Gly Ala Thr Leu Phe Lys Leu Asp Tyr Phe  
 305 310 315 320  
 Gly Glu Glu Ala Phe Leu Thr Gln Ser Ser Gln Leu Tyr Leu Glu Thr  
 325 330 335  
 Cys Leu Pro Ala Leu Gly Asp Val Phe Cys Ile Ala Gln Ser Tyr Arg  
 340 345 350  
 Ala Glu Gln Ser Arg Thr Arg Arg His Leu Ala Glu Tyr Thr His Val  
 355 360 365

## 4281

Glu Ala Glu Cys Pro Phe Leu Thr Phe Asp Asp Leu Leu Asn Arg Leu  
 370 375 380  
 Glu Asp Leu Val Cys Asp Val Val Asp Arg Ile Leu Lys Ser Pro Ala  
 385 390 395 400  
 Gly Ser Ile Val His Glu Leu Asn Pro Asn Phe Gln Pro Pro Lys Arg  
 405 410 415  
 Pro Phe Lys Arg Met Asn Tyr Ser Asp Ala Ile Val Trp Leu Lys Glu  
 420 425 430  
 His Asp Val Lys Lys Glu Asp Gly Thr Phe Tyr Glu Phe Gly Glu Asp  
 435 440 445  
 Ile Pro Glu Ala Pro Glu Arg Leu Met Thr Asp Thr Ile Asn Glu Pro  
 450 455 460  
 Ile Leu Leu Cys Arg Phe Pro Val Glu Ile Lys Ser Phe Tyr Met Gln  
 465 470 475 480  
 Arg Cys Pro Glu Asp Ser Arg Leu Thr Glu Ser Val Asp Val Leu Met  
 485 490 495  
 Pro Asn Val Gly Glu Ile Val Gly Gly Ser Met Arg Ile Phe Asp Ser  
 500 505 510  
 Glu Glu Ile Leu Ala Gly Tyr Lys Arg Glu Gly Ile Asp Pro Thr Pro  
 515 520 525  
 Tyr Tyr Trp Tyr Thr Asp Gln Arg Lys Tyr Gly Thr Cys Pro His Gly  
 530 535 540  
 Gly Tyr Gly Leu Gly Leu Glu Arg Phe Leu Thr Trp Ile Leu Asn Arg  
 545 550 555 560  
 Tyr His Ile Arg Asp Val Cys Leu Tyr Pro Arg Phe Val Gln Arg Cys  
 565 570 575  
 Thr Pro

&lt;210&gt; 4708

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

## 4282

<221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (106)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (122)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (134)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4708  
 Pro Leu Asn Gly Leu Leu Gly Gly Leu Asn Gly Ala Ala Ala Pro Asn  
     1                    5                    10                    15  
 Pro Ala Ser Leu Ser Gln Ala Gly Gly Ala Pro Thr Leu Gln Leu Pro  
                     20                    25                    30  
 Gly Cys Leu Asn Ser Leu Thr Glu Gln Gln Arg His Leu Leu Gln Gln  
                     35                    40                    45  
 Gln Glu Gln Gln Leu Gln Gln Leu Gln Gln Leu Leu Ala Ser Pro Gln  
                     50                    55                    60  
 Leu Thr Pro Glu His Gln Thr Val Val Tyr Gln Met Ile Gln Gln Ile  
     65                    70                    75                    80  
 Gln Gln Lys Arg Glu Leu Gln Arg Leu Gln Met Ala Gly Gly Ser Gln  
                     85                    90                    95  
 Leu Pro Met Ala Ser Leu Leu Ala Xaa Xaa Ser Thr Pro Leu Leu Ser  
                     100                    105                    110  
 Ala Gly Thr Pro Gly Leu Leu Pro Thr Xaa Ser Ala Pro Pro Leu Leu  
                     115                    120                    125  
 Pro Ala Gly Ala Leu Xaa Ala Pro Ser Leu Gly Asn Asn Thr Ser Leu  
     130                    135                    140  
 Met Ala Ala Ala Ala Ala Ala Gln Gln  
     145                    150

## 4283

&lt;210&gt; 4709

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4709

Thr Cys Tyr Ile Leu Pro Lys Thr Ala Pro Leu Glu Cys Arg Ala Pro  
1 5 10 15

Leu Arg Ser Pro Ser Pro Leu Gly Arg Leu Gln Val Leu Pro Arg Ser  
20 25 30

Pro Leu His Val His Thr His Asn Ser Gly Lys Glu Val Leu Gly Leu  
35 40 45

Gln Val Gln Arg Ser Arg Ser Gly Thr Gly Pro Ala Cys Ser Gln Ala  
50 55 60

Gly Ser Gly Ala Val Gln Gly Gly Asn Trp Cys Ile Phe  
65 70 75

&lt;210&gt; 4710

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4710

Leu Glu Pro Leu Gly Leu Glu Ser Gly Arg Gly Leu Pro Ser Gln Pro

## 4284

1                      5                      10                      15  
 Leu Ser Phe Leu Pro Arg Pro Gln Glu Leu Leu Gln Thr Gln Asp Phe  
                             20                      25                      30  
 Ser Lys Phe Gln Ala Leu Lys Pro Lys Leu Leu Asp Thr Val Asp Asp  
                             35                      40                      45  
 Met Leu Ala Asn Asp Ile Ala Arg Leu Met Val Met Val Arg Gln Glu  
                             50                      55                      60  
 Glu Ser Leu Met Pro Xaa Gln Val Val Lys Gly Gly Ala Phe Xaa Gly  
                             65                      70                      75                      80  
 Thr Met Asn Gly Pro Phe Gly His Gly Tyr Gly Glu Gly Ala Gly Glu  
                             85                      90                      95  
 Gly Ile Asp Asp Val Glu Trp Val Val Gly Lys Asp Lys Pro Thr Tyr  
                             100                      105                      110  
 Asp Glu Ile Phe Tyr Thr Leu Ser Pro Val Asn Gly Lys Ile Thr Gly  
                             115                      120                      125  
 Ala Asn Ala Lys Xaa Glu Met Val Lys Val Gln Ala Ser Gln His Arg  
                             130                      135                      140  
 Ala Lys Gly Lys Ile Trp Lys Leu Ala Asp Trp Thr Arg Thr Gly Leu  
                             145                      150                      155                      160  
 Leu Asp Asp Lys Glu Xaa Ala Leu Gly Asn His Leu  
                             165                      170

&lt;210&gt; 4711

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4711

Leu Gln Ala Arg Leu Leu Ser Ala Lys Gly Glu Ile Trp Met Ala Ser  
 1                      5                      10                      15  
 Thr Ser Tyr Asp Tyr Cys Arg Val Pro Met Glu Asp Gly Asp Lys Arg  
                             20                      25                      30  
 Cys Lys Leu Leu Leu Gly Ile Gly Ile Leu Val Leu Leu Ile Ile Val  
                             35                      40                      45  
 Ile Leu Gly Val Pro Leu Ile Ile Phe Thr Ile Lys Ala Asn Ser Glu  
                             50                      55                      60

## 4285

Ala Cys Arg Asp Gly Leu Arg Ala Val Met Glu Cys Arg Asn Val Thr  
65 70 75 80

His Leu Leu Gln Gln Glu Leu Thr Glu Ala Gln Lys Gly Phe Gln Asp  
85 90 95

Val Glu Ala Gln Ala Ala Thr Cys Asn His Thr Val Met Ala Leu Met  
100 105 110

Ala Ser Leu Asp Ala Glu Lys Ala Gln Gly Gln Lys Lys Val Glu Glu  
115 120 125

Leu Glu Gly Glu Ile Thr Thr Leu Asn His Lys Leu Gln Asp Ala Ser  
130 135 140

Ala Glu Val Glu Arg Leu Arg Arg Glu Asn Gln Val Leu Ser Val Arg  
145 150 155 160

Ile Ala Asp Lys Lys Tyr Tyr Pro Ser Ser Gln Asp Ser Ser Ser Ala  
165 170 175

Ala Ala Pro Gln Leu Leu Ile Val Leu Leu Gly Leu Ser Ala Leu Leu  
180 185 190

Gln

<210> 4712

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4712

Leu Glu Gly Ala Leu Thr Arg Thr Glu His Trp Ser Asn Asn Leu Ala  
1 5 10 15

Thr Phe Pro Trp Lys Arg Ser Ala Arg Ser Gln Ile Arg Arg Asp Ala  
20 25 30

Pro Ala Gly Lys Gly Gly Gly Cys Lys Thr Arg Ala Val Ser Leu Gly  
35 40 45

Arg Lys Ala Val Val Ser Pro Gln Gly Val Gln Leu Cys Gly Thr His  
50 55 60

Thr Tyr Arg Ser Lys  
65

## 4286

&lt;210&gt; 4713

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4713

Val	Lys	Thr	Pro	Pro	Arg	Val	Leu	Thr	Leu	Ser	Glu	Arg	Pro	Leu	Asp
1				5					10					15	

Phe	Leu	Asp	Leu	Glu	Arg	Pro	Pro	Thr	Thr	Pro	Gln	Asn	Glu	Glu	Ile
			20					25					30		

Arg	Ala	Val	Gly	Arg	Leu	Lys	Arg	Glu	Arg	Ser	Met	Ser	Glu	Asn	Ala
		35					40					45			

Val	Arg	Gln	Asn	Gly	Gln	Leu	Val	Arg	Asn	Asp	Ser	Leu	Val	Thr	Pro
		50				55					60				

Ser	Pro	Gln	Gln	Ala	Arg	Val	Cys	Pro	Pro	His	Met	Leu	Pro	Glu	Asp
65					70					75					80

Gly	Ala	Asn	Leu	Ser	Ser	Ala	Arg	Gly	Ile	Leu	Ser	Leu	Ile	Gln	Ser
				85					90					95	

Ser	Thr	Arg	Arg	Ala	Tyr	Gln	Gln	Ile	Leu	Asp	Val	Leu	Asp	Glu	Asn
			100					105					110		

Arg	Arg	Pro	Val	Leu	Arg	Gly	Gly	Ser	Xaa	Ala	Ala	Thr	Ser	Asn	Pro
		115					120					125			

His	His	Asp	Asn	Val	Arg	Tyr	Gly	Ile	Ser	Asn	Ile	Asp	Thr	Thr	Ile
		130				135					140				

Glu	Gly	Thr	Ser	Asp	Asp	Leu	Thr	Val	Val	Asp	Ala	Ala	Ser	Leu	Arg
145					150					155					160

Arg	Gln	Ile	Ile	Lys	Leu	Asn	Arg	Arg	Leu	Gln	Leu	Leu	Glu	Glu	Glu
				165					170					175	

Asn	Lys	Glu	Arg	Ala	Lys	Arg	Glu	Met	Val	Met	Tyr	Ser	Ile	Thr	Val
			180					185					190		

Ala	Phe	Trp	Leu	Leu	Asn	Ser	Trp	Leu	Trp	Phe	Arg	Arg
		195					200					205

## 4287

&lt;210&gt; 4714

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4714

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Ile Pro Leu Pro Phe Gly Lys Pro Gln Pro Gln Ser Arg Arg Arg Pro
 1              5              10              15

Leu Arg Pro Pro Ser Ala Ser Ser Ala Ser Arg Pro Ala Arg Gly Ser
      20              25              30

Leu Arg Arg Ala Met Ala Thr Ser Pro Gln Lys Ser Pro Ser Val Pro
      35              40              45

Lys Ser Pro Thr Pro Lys Ser Pro Pro Ser Arg Lys Lys Asp Asp Ser
      50              55              60

Phe Leu Gly Lys Leu Gly Gly Thr Leu Ala Arg Arg Lys Lys Ala Lys
      65              70              75              80

Glu Val Ser Glu Leu Gln Glu Glu Gly Met Asn Ala Ile Asn Leu Pro
      85              90              95

Leu Ser Pro Ile Pro Phe Glu Leu Asp Pro Glu Asp Thr Met Leu Glu
      100             105             110

Glu Asn Glu Val Arg Thr Met Val Asp Pro Asn Ser Arg Ser Thr Pro
      115             120             125

Lys Leu Gln Glu Leu Met Lys Val Leu Ile Asp Trp Ile Asn Asp Val
      130             135             140

Leu Val Gly Glu Arg Ile Ile Val Lys Asp Leu Ala Glu Asp Leu Tyr
      145             150             155             160

Asp Gly Gln Val Leu Gln Lys Leu Phe Glu Lys Leu Glu Ser Glu Lys
      165             170             175

Leu Asn Val Ala Glu Val Thr Gln Ser Glu Ile Ala Gln Lys Gln Lys
      180             185             190

Leu Gln Thr Val Leu Glu Lys Ile Asn Glu Thr Leu Lys Leu Pro Pro
      195             200             205

Arg Ser Ile Lys Trp Asn Val Asp Ser Val His Ala Lys Ser Leu Val
      210             215             220

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## 4288

Ala Ile Leu His Leu Leu Val Ala Leu Ser Gln Tyr Phe Arg Ala Pro  
 225 230 235 240  
 Ile Arg Leu Pro Asp His Val Ser Ile Gln Val Val Val Val Gln Lys  
 245 250 255  
 Arg Glu Gly Ile Leu Gln Ser Arg Gln Ile Gln Glu Glu Ile Thr Gly  
 260 265 270  
 Asn Thr Glu Ala Leu Ser Gly Arg His Glu Arg Asp Ala Phe Asp Thr  
 275 280 285  
 Leu Phe Asp His Ala Pro Asp Lys Leu Asn Val Val Lys Lys Thr Leu  
 290 295 300  
 Ile Thr Phe Val Asn Lys His Leu Asn Lys Leu Asn Leu Glu Val Thr  
 305 310 315 320  
 Glu Leu Glu Thr Gln Phe Ala Asp Gly Val Tyr Leu Val Leu Leu Met  
 325 330 335  
 Gly Leu Leu Glu Gly Tyr Phe Val Pro Leu His Ser Phe Phe Leu Thr  
 340 345 350  
 Pro Asp Ser Phe Glu Gln Lys Val Leu Asn Val Ser Phe Ala Phe Glu  
 355 360 365  
 Leu Met Gln Asp Gly Gly Leu Glu Lys Pro Lys Pro Arg Pro Glu Asp  
 370 375 380  
 Ile Val Asn Cys Asp Leu Lys Ser Thr Leu Arg Val Leu Tyr Asn Leu  
 385 390 395 400  
 Phe Thr Lys Tyr Arg Asn Val Glu  
 405

&lt;210&gt; 4715

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4715

Asp Pro Tyr Ser Gln Ser Ala Thr Ala Phe Asn Glu Met Ile Gln Glu  
 1 5 10 15

Asn Gly Tyr Asn Phe Asp Arg Ser Ser Ser Thr Phe Ser Gly Ile Lys  
 20 25 30

Glu Leu Ala Arg Arg Phe Ala Leu Thr Phe Gly Leu Asp Gln Leu Lys

## 4289

35	40	45
Thr Arg Glu Ala Ile Ala Met Leu His Lys Asp Gly Ile Glu Phe Ala		
50	55	60
Phe Lys Glu Pro Asn Pro Gln Gly Glu Ser His Pro Pro Leu Asn Leu		
65	70	75 80
Ala Phe Leu Asp Ile Leu Ser Glu Phe Ser Ser Lys Leu Leu Arg Gln		
	85 90	95
Asp Lys Arg Thr Val Tyr Val Tyr Leu Glu Lys Phe Met Thr Phe Gln		
	100 105	110
Met Ser Leu Arg Arg Glu Asp Val Trp Leu Pro Leu Met Ser Tyr Arg		
	115 120	125
Asn Ser Leu Leu Ala Gly Gly Asp Asp Asp Thr Met Ser Val Ile Ser		
	130 135	140
Gly Ile Ser Ser Arg Gly Ser Thr Val Arg Ser Lys Lys Ser Lys Pro		
	145 150	155 160
Ser Thr Gly Lys Arg Lys Val Val Glu Gly Met Gln Leu Ser Leu Thr		
	165 170	175
Glu Glu Ser Ser Ser Asp Ser Met Trp Leu Ser Arg Glu Gln Thr		
	180 185	190
Leu His Thr Pro Val Met Met Gln Thr Pro Gln Leu Thr Ser Thr Ile		
	195 200	205
Met Arg Glu Pro Lys Arg Leu Arg Pro Glu Asp Ser Phe Met Ser Val		
	210 215	220
Tyr Pro Met Gln Thr Glu His His Gln Thr Pro Leu Asp Tyr Asn Arg		
	225 230	235 240
Arg Gly Thr Ser Leu Met Glu Asp Asp Glu Glu Pro Ile Val Glu Asp		
	245 250	255
Val Met Met Ser Ser Glu Gly Arg Ile Glu Asp Leu Asn Glu Gly Met		
	260 265	270
Asp Phe Asp Thr Met Asp Ile Asp Leu Pro Pro Ser Lys Asn Arg Arg		
	275 280	285
Glu Arg Thr Glu Leu Lys Pro Asp Phe Phe Asp Pro Ala Ser Ile Met		
	290 295	300
Asp Glu Ser Val Leu Gly Val Ser Met Phe		

## 4290

305

310

&lt;210&gt; 4716

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (180)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4716

Arg	Pro	Cys	Pro	Glu	Glu	Ala	Glu	Ile	Gly	Ile	Ala	Met	Gly	Ser	Gly
1				5					10					15	

Thr	Ala	Val	Ala	Lys	Thr	Ala	Ser	Glu	Met	Val	Leu	Ala	Asp	Asp	Asn
			20					25					30		

Phe	Ser	Thr	Ile	Val	Ala	Ala	Val	Glu	Glu	Gly	Arg	Ala	Ile	Tyr	Asn
		35					40					45			

Asn	Met	Lys	Gln	Phe	Ile	Arg	Tyr	Leu	Ile	Ser	Ser	Asn	Val	Gly	Glu
	50					55					60				

Val	Val	Cys	Ile	Phe	Leu	Thr	Ala	Ala	Leu	Gly	Leu	Pro	Glu	Ala	Leu
65					70					75					80

Ile	Pro	Val	Gln	Leu	Leu	Trp	Val	Asn	Leu	Val	Thr	Asp	Gly	Leu	Pro
			85						90					95	

Ala	Thr	Ala	Leu	Gly	Phe	Asn	Pro	Pro	Asp	Leu	Asp	Ile	Met	Asp	Arg
			100					105					110		

Pro	Pro	Arg	Ser	Pro	Lys	Glu	Pro	Leu	Ile	Ser	Gly	Trp	Leu	Phe	Phe
		115					120					125			

Arg	Tyr	Met	Ala	Ile	Gly	Gly	Tyr	Val	Gly	Ala	Ala	Thr	Val	Gly	Ala
	130					135					140				

Ala	Ala	Trp	Trp	Phe	Leu	Tyr	Ala	Glu	Asp	Gly	Pro	His	Val	Asn	Tyr
145					150					155					160

Ser	Gln	Leu	Thr	His	Phe	Met	Gln	Cys	Thr	Glu	Asp	Asn	Thr	His	Phe
				165					170					175	

Glu	Gly	Ile	Xaa	Cys	Glu	Val	Phe	Glu	Ala	Pro	Glu	Pro	Met	Thr	Met
			180					185					190		

## 4291

Ala Leu Ser Val Leu Val Thr Ile Glu Met Cys Asn Ala Leu Asn Ser  
 195 200 205

Leu Ser Glu Asn Gln Ser Leu Leu Arg Met Pro Pro Trp Val Asn Ile  
 210 215 220

Trp Leu Leu Gly Ser Ile Cys Leu Ser Met Ser Leu His Phe Leu Ile  
 225 230 235 240

Leu Tyr Val Asp Pro Leu Pro Met Ile Phe Lys Leu Arg Ala Leu Asp  
 245 250 255

Leu Thr Gln Trp Leu Met Val Leu Lys Ile Ser Leu Pro Val Ile Gly  
 260 265 270

Leu Asp Glu Ile Leu Lys Phe Val Ala Arg Asn Tyr Leu Glu Gly  
 275 280 285

<210> 4717

<211> 47

<212> PRT

<213> Homo sapiens

<400> 4717

Gln Arg Pro Cys Gly Leu Gln Gly Pro Lys Tyr Leu Leu Ser Gly Leu  
 1 5 10 15

Leu Leu Lys Lys Phe Ser Gln Ala Trp Trp Trp Ala Pro Val Ile Pro  
 20 25 30

Ala Thr Arg Glu Ser Glu Ala Gly Glu Ser Leu Glu Pro Gly Arg  
 35 40 45

<210> 4718

<211> 436

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (382)

<223> Xaa equals any of the naturally occurring L-amino acids

## 4292

&lt;400&gt; 4718

Ala Xaa Asp Pro Ser Arg Val Met Asp Gln His Lys Leu Thr Arg Asp  
 1 5 10 15  
 Gln Trp Glu Asp Arg Ile Gln Val Trp His Ala Glu His Arg Gly Met  
 20 25 30  
 Leu Lys Asp Asn Ala Met Leu Glu Tyr Leu Lys Ile Ala Gln Asp Leu  
 35 40 45  
 Glu Met Tyr Gly Ile Asn Tyr Phe Glu Ile Lys Asn Lys Lys Gly Thr  
 50 55 60  
 Asp Leu Trp Leu Gly Val Asp Ala Leu Gly Leu Asn Ile Tyr Glu Lys  
 65 70 75 80  
 Asp Asp Lys Leu Thr Pro Lys Ile Gly Phe Pro Trp Ser Glu Ile Arg  
 85 90 95  
 Asn Ile Ser Phe Asn Asp Lys Lys Phe Val Ile Lys Pro Ile Asp Lys  
 100 105 110  
 Lys Ala Pro Asp Phe Val Phe Tyr Ala Pro Arg Leu Arg Ile Asn Lys  
 115 120 125  
 Arg Ile Leu Gln Leu Cys Met Gly Asn His Glu Leu Tyr Met Arg Arg  
 130 135 140  
 Arg Lys Pro Asp Thr Ile Glu Val Gln Gln Met Lys Ala Gln Ala Arg  
 145 150 155 160  
 Glu Glu Lys His Gln Lys Gln Leu Glu Arg Gln Gln Leu Glu Thr Glu  
 165 170 175  
 Lys Lys Arg Arg Glu Thr Val Glu Arg Glu Lys Glu Gln Met Met Arg  
 180 185 190  
 Glu Lys Glu Glu Leu Met Leu Arg Leu Gln Asp Tyr Glu Glu Lys Thr  
 195 200 205  
 Lys Lys Ala Glu Arg Glu Leu Ser Glu Gln Ile Gln Arg Ala Leu Gln  
 210 215 220  
 Leu Glu Glu Glu Arg Lys Arg Ala Gln Glu Glu Ala Glu Arg Leu Glu  
 225 230 235 240  
 Ala Asp Arg Met Ala Ala Leu Arg Ala Lys Glu Glu Leu Glu Arg Gln  
 245 250 255  
 Ala Val Asp Gln Ile Lys Ser Gln Glu Gln Leu Ala Ala Glu Leu Ala

## 4293

260					265					270					
Glu	Tyr	Thr	Ala	Lys	Ile	Ala	Leu	Leu	Glu	Glu	Ala	Arg	Arg	Arg	Lys
275					280					285					
Glu	Asp	Glu	Val	Glu	Glu	Trp	Gln	His	Arg	Ala	Lys	Glu	Ala	Gln	Asp
290					295					300					
Asp	Leu	Val	Lys	Thr	Lys	Glu	Glu	Leu	His	Leu	Val	Met	Thr	Ala	Pro
305					310					315					320
Pro	Pro	Pro	Pro	Pro	Pro	Val	Tyr	Glu	Pro	Val	Ser	Tyr	His	Val	Gln
325					330					335					
Glu	Ser	Leu	Gln	Asp	Glu	Gly	Ala	Glu	Pro	Thr	Gly	Tyr	Ser	Ala	Glu
340					345					350					
Leu	Ser	Ser	Glu	Gly	Ile	Arg	Asp	Asp	Arg	Asn	Glu	Glu	Lys	Arg	Ile
355					360					365					
Thr	Glu	Ala	Glu	Lys	Asn	Glu	Arg	Val	Gln	Arg	Gln	Leu	Xaa	Thr	Leu
370					375					380					
Ser	Ser	Glu	Leu	Ser	Gln	Ala	Arg	Asp	Glu	Asn	Lys	Arg	Thr	His	Asn
385					390					395					400
Asp	Ile	Ile	His	Asn	Glu	Asn	Met	Arg	Gln	Gly	Arg	Asp	Lys	Tyr	Lys
405					410					415					
Thr	Leu	Arg	Gln	Ile	Arg	Gln	Gly	Asn	Thr	Lys	Gln	Arg	Ile	Asp	Glu
420					425					430					
Phe	Glu	Ala	Leu												
435															

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<210> 4719
<211> 173
<212> PRT
<213> Homo sapiens
```

<400> 4719  
Leu Gln Val Val Gln Ala Asp Ile Ala Ser Ile Asp Ser Asp Ala Val  
1 5 10 15  
Val His Pro Thr Asn Thr Asp Phe Tyr Ile Gly Gly Glu Val Gly Asn  
20 25 30  
Thr Leu Glu Lys Lys Gly Gly Lys Glu Phe Val Glu Ala Val Leu Glu  
35 40 45

## 4294

Leu Arg Lys Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser  
 50 55 60

Ala Gly His Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro  
 65 70 75 80

Val Trp Gly Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys  
 85 90 95

Asn Cys Leu Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe  
 100 105 110

Pro Ser Ile Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala  
 115 120 125

Gln Leu Ile Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser  
 130 135 140

Ser Ser Ile Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile  
 145 150 155 160

Gly Ile Tyr Val Gln Glu Met Ala Lys Leu Asp Ala Asn  
 165 170

<210> 4720

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4720

Arg Gly Asp Pro Phe Pro Leu Val Gly Phe Gly Ser Cys Val Ser Ser  
 1 5 10 15

## 4295

Leu Cys Lys Thr Leu His Gln Gly Tyr Pro Gly His Glu Gly Val Pro  
                   20                  25                  30  
 Pro Val Pro Val Tyr Phe Cys Thr Arg Thr Ser Asn Lys Thr Gly Arg  
                   35                  40                  45  
 Cys Leu Gly Asn Cys His Gly Val Arg Glu Arg Asp Ala Phe Tyr Ser  
                   50                  55                  60  
 Xaa Gly Val Asp Asp Xaa Thr Xaa Val Ile Asn Cys Ile Cys Trp Glu  
                   65                  70                  75                  80  
 Lys Val Glu Tyr

<210> 4721  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<400> 4721  
 Arg Gly Gly Gly Cys Ser Glu Pro Arg Ser Arg His Cys Thr Pro Ala  
           1                  5                  10                  15  
 Trp Gly Thr Arg Val Arg Leu Ser Leu Lys Lys Lys Lys Lys Glu Lys  
                   20                  25                  30  
 Lys Ile Arg Asp Ile Val His Ile Pro Leu Leu Cys Leu His Arg Cys  
                   35                  40                  45  
 Pro

<210> 4722  
 <211> 267  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (88)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids



## 4296

<220>  
 <221> SITE  
 <222> (95)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (140)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (162)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (165)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (173)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4722  
 Asn Asn Leu Asn Ser Val Leu Ala Glu Arg Leu Glu Lys Trp Leu Gln  
     1                    5                    10                    15  
 Leu Met Leu Met Trp His Pro Arg Gln Arg Gly Thr Asp Pro Thr Tyr  
                     20                    25                    30  
 Gly Pro Asn Gly Cys Phe Lys Ala Leu Asp Asp Ile Leu Asn Leu Lys  
                     35                    40                    45  
 Leu Val His Ile Leu Asn Met Val Thr Gly Thr Ile His Thr Tyr Pro  
                     50                    55                    60  
 Val Thr Glu Asp Glu Ser Leu Gln Ser Leu Lys Ala Arg Ile Gln Gln  
                     65                    70                    75                    80  
 Asp Thr Gly Ile Pro Glu Glu Xaa Gln Xaa Leu Leu Gln Glu Xaa Gly  
                     85                    90                    95  
 Leu Ala Leu Ile Pro Asp Lys Pro Ala Thr Gln Cys Ile Ser Asp Gly  
                     100                    105                    110  
 Lys Leu Asn Glu Gly His Thr Leu Asp Met Asp Leu Val Phe Leu Phe  
                     115                    120                    125

## 4297

Asp Asn Ser Lys Ile Thr Tyr Glu Thr Gln Ile Xaa Pro Arg Pro Gln  
 130 135 140  
 Pro Glu Ser Val Ser Cys Ile Leu Gln Glu Pro Lys Arg Asn Leu Ala  
 145 150 155 160  
 Phe Xaa Gln Leu Xaa Lys Val Trp Gly Gln Val Trp Xaa Ser Ile Gln  
 165 170 175  
 Thr Leu Lys Glu Asp Cys Asn Arg Leu Gln Gln Gly Gln Arg Ala Ala  
 180 185 190  
 Met Met Asn Leu Leu Arg Asn Asn Ser Cys Leu Ser Lys Met Lys Asn  
 195 200 205  
 Ser Met Ala Ser Met Ser Gln Gln Leu Lys Ala Lys Leu Asp Phe Phe  
 210 215 220  
 Lys Thr Ser Ile Gln Ile Asp Leu Glu Lys Tyr Ser Glu Gln Thr Glu  
 225 230 235 240  
 Phe Gly Ile Thr Ser Asp Lys Leu Leu Leu Ala Trp Arg Glu Met Glu  
 245 250 255  
 Gln Ala Val Glu Leu Cys Gly Arg Glu Asn Glu  
 260 265

&lt;210&gt; 4723

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4723

His Phe Leu Thr Cys Gly Arg Glu Lys Leu Pro Asn Phe Phe Phe Leu  
 1 5 10 15  
 Leu Leu Asn Cys Asn Ile Val Glu Asp Phe Phe Phe Leu Phe Ser Leu  
 20 25 30  
 Ile Gly Ala Phe Cys Thr Gly Phe Val Cys Val Cys Val Cys Val Cys  
 35 40 45  
 Ala Arg Ala Cys Val Leu Ile Cys Phe Leu Ile His Ser Tyr Pro Leu  
 50 55 60  
 Cys Leu Ser Tyr His Cys Leu Pro Gly Tyr Leu Lys Gln Val His Thr  
 65 70 75 80  
 Phe Glu Lys Lys Lys Lys Cys Cys Leu Lys Asn Val Phe Ser Cys Cys

## 4298

85

90

95

Ser Lys Tyr Phe Ala  
100

&lt;210&gt; 4724

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4724

Arg Ser Pro Asp Ser Ser Gln Val Leu Gly Ala Arg Asp Ala Asp Ser  
1 5 10 15

Ser Ser Gly Cys Phe Ser Arg Cys Ser Trp Ala Leu Ala Ser Asp Gly  
20 25 30

Ala Leu Arg Gly Cys Phe Pro Gly Ala Arg Phe Cys Ser Thr Thr Ser  
35 40 45

Xaa Glu Gly Asn Thr Thr Phe Thr Gly Ser Ala Ala Ala Pro Gly Pro  
50 55 60

Ser Ala Ser Arg Gln Gly Pro Lys Pro Gly Pro Pro Ala Ala Thr Val  
65 70 75 80

Ala Arg Gln Thr Ser Arg Val Ser Pro Ala Pro Pro Cys Ser Leu Arg  
85 90 95

Pro Gly Leu Arg His Glu Ser Ala Pro Ser Gly Ile Gly Asp Val Thr  
100 105 110

Ala Arg Gly Ala Leu Arg Gly Leu Gly Cys Thr Val Arg Val Thr Ala  
115 120 125

Ala Cys Ala Gly Asn His Gly Cys Ser Gln Met Leu Ala Leu Arg Asn  
130 135 140

Ser Lys Trp Glu Thr Ala Ser Arg Arg Gly Val Leu Thr Gly Arg Leu  
145 150 155 160

Gly Ile Lys

## 4299

&lt;210&gt; 4725

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4725

Glu Ser Leu Trp Ala Phe Cys Leu Ser Leu Leu Glu Arg Leu Ala Cys  
 1 5 10 15

Cys Ser Leu Leu Tyr Pro Glu Val Cys Leu Trp Asp Phe Ser Pro Val  
 20 25 30

Ala Val Glu Thr Arg Arg Pro Thr Leu Phe Glu Thr Gln Met Leu Leu  
 35 40 45

Ser Leu Ala Ser Pro Ser Leu Ser Ser Pro Asn Glu Pro Thr Phe Cys  
 50 55 60

Thr Ser Thr Arg Met Pro Gly Arg Leu Gly Pro Gln Arg Leu Leu Phe  
 65 70 75 80

Gln Asn Leu Trp Lys Pro Arg Leu Asn Val Pro  
 85 90

&lt;210&gt; 4726

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4726

Ile Ser Ser His Leu Val Ser Lys Leu Leu Leu Thr Met Val Val Leu  
 1 5 10 15

Leu Glu Gln Ser Phe Gln Ala Pro Leu Arg Thr Ile Phe Asn Ser Asp  
 20 25 30

Thr Lys Gly Lys Thr Gly Cys Tyr Phe Cys Phe Val Val Gln Leu Val  
 35 40 45

Leu Tyr Ser His Met Leu Tyr Ile Leu Asn Ser Pro Val Leu Phe Arg  
 50 55 60

Leu Val Asn Arg Thr Ile Ser Met  
 65 70

## 4300

&lt;210&gt; 4727

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4727

Gly Gly Leu Ala Trp Arg Ala Leu Arg Thr Ser Gly Thr Leu Leu Arg  
 1 5 10 15

Val Glu Arg Leu Leu Leu Glu Asp Tyr Cys Pro Glu Glu Lys Met Phe  
 20 25 30

Gly Phe His Lys Pro Lys Met Tyr Arg Ser Ile Glu Gly Cys Cys Ile  
 35 40 45

Cys Arg Ala Lys Ser Ser Ser Ser Arg Phe Thr Asp Ser Lys Arg Tyr  
 50 55 60

Glu Lys Asp Phe Gln Ser Cys Phe Gly Leu His Glu Thr Arg Ser Gly  
 65 70 75 80

Asp Ile Cys Asn Ala Cys Val Leu Leu Val Lys Arg Trp Lys Lys Leu  
 85 90 95

Pro Ala Gly Ser Lys Lys Asn Trp Asn His Val Val Asp Ala Arg Ala  
 100 105 110

Gly Pro Ser Leu Lys Thr Thr Leu Lys Pro Lys Lys Val Lys Thr Leu  
 115 120 125

Ser Gly Asn Arg Ile Lys Ser Asn Gln Ile Ser Lys Leu Gln Lys Glu  
 130 135 140

Phe Lys Arg His Asn Ser Asp Ala His Ser Thr Thr Ser Ser Ala Ser  
 145 150 155 160

Pro Ala Gln Ser Pro Cys Tyr Ser Asn Gln Ser Asp Asp Gly Ser Asp  
 165 170 175

Thr Glu Met Ala Ser Gly Ser Asn Arg Thr Pro Val Phe Ser Phe Leu  
 180 185 190

Asp Leu Thr Tyr Trp Lys Arg Gln Lys Ile Cys Cys Gly Ile Ile Tyr  
 195 200 205

Lys Gly Arg Phe Gly Glu Val Leu Ile Asp Thr His Leu Phe Lys Pro  
 210 215 220

Cys Cys Ser Asn Lys Lys Ala Ala Ala Glu Lys Pro Glu Glu Gln Gly  
 225 230 235 240

## 4301

Pro Glu Pro Leu Pro Ile Ser Thr Gln Glu Trp  
                   245                  250

<210> 4728

<211> 45

<212> PRT

<213> Homo sapiens

<400> 4728

Cys Cys Asp Ala Cys Phe Gln Asp Pro Tyr Gly Val Ala Val Gly Gly  
   1                  5                  10                  15

Thr Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg  
                   20                  25                  30

Met Ile Ala Gln Lys Ile Ser Val Arg Thr Gly Lys Ser  
                   35                  40                  45

<210> 4729

<211> 134

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4729

Leu Pro Ala Gly Met Ser Ala Lys Met Leu Gly Gly Val Phe Lys Ile  
   1                  5                  10                  15

Asp Trp Ile Cys Arg Arg Glu Leu Pro Phe Thr Lys Ser Ala His Leu  
                   20                  25                  30

Thr Asn Pro Trp Asn Glu His Lys Pro Val Lys Ile Gly Arg Asp Gly  
                   35                  40                  45

## 4302

Gln Glu Ile Glu Leu Glu Cys Gly Thr Gln Leu Cys Leu Leu Phe Pro  
 50 55 60

Pro Asp Glu Ser Ile Asp Leu Tyr Gln Val Ile His Lys Met Arg His  
 65 70 75 80

Lys Arg Arg Met His Ser Gln Pro Arg Ser Arg Gly Arg Pro Ser Arg  
 85 90 95

Glu Asn Gln Ser Xaa Xaa Xaa Glu Gly Val Asp Gln Lys Ile Met Ile  
 100 105 110

Phe Ile Thr Ala Glu Arg Asn Gln Gly Leu Thr Ile Pro Leu Ser Phe  
 115 120 125

Thr Arg Asp Gln Gly Ile  
 130

<210> 4730

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4730

Leu Val Pro Pro Lys Ser Trp Thr Ile Gln Val Gly Leu Val Ser Leu  
 1 5 10 15

Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu Lys Ile Val Tyr His  
 20 25 30

Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp Ile Ala Leu Met Lys  
 35 40 45

Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro Val Cys Leu  
 50 55 60

Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys Trp Thr Ser  
 65 70 75 80

Gly Trp Gly Ala Thr Glu Asp Gly Ala Gly Asp Ala Ser Pro Val Leu  
 85 90 95

Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn His Arg  
 100 105 110

Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala Gly Tyr  
 115 120 125

## 4303

Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu  
 130 135 140

Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe  
 145 150 155 160

Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg Val  
 165 170 175

Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp Leu Lys  
 180 185 190

Thr

<210> 4731

<211> 426

<212> PRT

<213> Homo sapiens

<400> 4731

Cys His Arg Gln Arg Arg Cys Leu Leu Pro Ser Asp Cys Glu Lys Thr  
 1 5 10 15

Ile Thr Gly Pro Arg Asn Cys His Ala Asn Arg Leu Pro Cys Ile Tyr  
 20 25 30

Leu Val Asp Ser Gly Gly Ala Tyr Leu Pro Arg Gln Ala Asp Val Phe  
 35 40 45

Pro Asp Arg Asp His Phe Gly Arg Thr Phe Tyr Asn Gln Ala Ile Met  
 50 55 60

Ser Ser Lys Asn Ile Ala Gln Ile Ala Val Val Met Gly Ser Cys Thr  
 65 70 75 80

Ala Gly Gly Ala Tyr Val Pro Ala Met Ala Asp Glu Asn Ile Ile Val  
 85 90 95

Arg Lys Gln Gly Thr Ile Phe Leu Ala Gly Pro Pro Leu Val Lys Ala  
 100 105 110

Ala Thr Gly Glu Glu Val Ser Ala Glu Asp Leu Gly Gly Ala Asp Leu  
 115 120 125

His Cys Arg Lys Ser Gly Val Ser Asp His Trp Ala Leu Asp Asp His  
 130 135 140

His Ala Leu His Leu Thr Arg Lys Val Val Arg Asn Leu Asn Tyr Gln



## 4304

145		150		155		160
Lys Lys Leu Asp Val Thr Ile Glu Pro Ser Glu Glu Pro Leu Phe Pro						
	165		170		175	
Ala Asp Glu Leu Tyr Gly Ile Val Gly Ala Asn Leu Lys Arg Ser Phe						
	180		185		190	
Asp Val Arg Glu Val Ile Ala Arg Ile Val Asp Gly Ser Arg Phe Thr						
	195		200		205	
Glu Phe Lys Ala Phe Tyr Gly Asp Thr Leu Val Thr Gly Phe Ala Arg						
	210		215		220	
Ile Phe Gly Tyr Pro Val Gly Ile Val Gly Asn Asn Gly Val Leu Phe						
	225		230		235	
Ser Glu Ser Ala Lys Lys Gly Thr His Phe Val Gln Leu Cys Cys Gln						
	245		250		255	
Arg Asn Ile Pro Leu Leu Phe Leu Gln Asn Ile Thr Gly Phe Met Val						
	260		265		270	
Gly Arg Glu Tyr Glu Ala Glu Gly Ile Ala Lys Asp Gly Ala Lys Met						
	275		280		285	
Val Ala Ala Val Ala Cys Ala Gln Val Pro Lys Ile Thr Leu Ile Ile						
	290		295		300	
Gly Gly Ser Tyr Gly Ala Gly Asn Tyr Gly Met Cys Gly Arg Ala Tyr						
	305		310		315	
Ser Pro Arg Phe Leu Tyr Ile Trp Pro Asn Ala Arg Ile Ser Val Met						
	325		330		335	
Gly Gly Glu Gln Ala Ala Asn Val Leu Ala Thr Ile Thr Lys Asp Gln						
	340		345		350	
Arg Ala Arg Glu Gly Lys Gln Phe Ser Ser Ala Asp Glu Ala Ala Leu						
	355		360		365	
Lys Glu Pro Ile Ile Lys Lys Phe Glu Glu Glu Gly Asn Pro Tyr Tyr						
	370		375		380	
Ser Ser Ala Arg Val Trp Asp Asp Gly Ile Ile Asp Pro Ala Asp Thr						
	385		390		395	
Arg Leu Val Leu Gly Leu Ser Phe Ser Ala Ala Leu Asn Ala Pro Ile						
	405		410		415	
Glu Lys Thr Asp Phe Gly Ile Phe Arg Met						

## 4305

420

425

&lt;210&gt; 4732

&lt;211&gt; 651

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4732

Tyr Phe Thr Asn Glu Thr Asp Asp Ile Ala Asn Leu Glu Ala Ser Val  
 1 5 10 15

Leu Glu Asn Pro Ser His Val Gln Leu Trp Leu Lys Leu Ala Tyr Lys  
 20 25 30

Tyr Leu Asn Gln Asn Glu Gly Glu Cys Ser Glu Ser Leu Asp Ser Ala  
 35 40 45

Leu Asn Val Leu Ala Arg Ala Leu Glu Asn Asn Lys Asp Asn Pro Glu  
 50 55 60

Ile Trp Cys His Tyr Leu Arg Leu Phe Ser Lys Arg Gly Thr Lys Asp  
 65 70 75 80

Glu Val Gln Glu Met Cys Glu Thr Ala Val Glu Tyr Ala Pro Asp Tyr  
 85 90 95

Gln Ser Phe Trp Thr Phe Leu His Leu Glu Ser Thr Phe Glu Glu Lys  
 100 105 110

Asp Tyr Val Cys Glu Arg Met Leu Glu Phe Leu Met Gly Ala Ala Lys  
 115 120 125

Gln Glu Thr Ser Asn Ile Leu Ser Phe Gln Leu Leu Glu Ala Leu Leu  
 130 135 140

Phe Arg Val Gln Leu His Ile Phe Thr Gly Arg Cys Gln Ser Ala Leu  
 145 150 155 160

Ala Ile Leu Gln Asn Ala Leu Lys Ser Ala Asn Asp Gly Ile Val Ala  
 165 170 175

Glu Tyr Leu Lys Thr Ser Asp Arg Cys Leu Ala Trp Leu Ala Tyr Ile  
 180 185 190

His Leu Ile Glu Phe Asn Ile Leu Pro Ser Lys Phe Tyr Asp Pro Ser  
 195 200 205

Asn Asp Asn Pro Ser Arg Ile Val Asn Thr Glu Ser Phe Val Met Pro  
 210 215 220

## 4306

Trp Gln Ala Val Gln Asp Val Lys Thr Asn Pro Asp Met Leu Leu Ala  
 225 230 235 240  
 Val Phe Glu Asp Ala Val Lys Ala Cys Thr Asp Glu Ser Leu Ala Val  
 245 250 255  
 Glu Glu Arg Ile Glu Ala Cys Leu Pro Leu Tyr Thr Asn Met Ile Ala  
 260 265 270  
 Leu His Gln Leu Leu Glu Arg Tyr Glu Ala Ala Met Glu Leu Cys Lys  
 275 280 285  
 Ser Leu Leu Glu Ser Cys Pro Ile Asn Cys Gln Leu Leu Glu Ala Leu  
 290 295 300  
 Val Ala Leu Tyr Leu Gln Thr Asn Gln His Asp Lys Ala Arg Ala Val  
 305 310 315 320  
 Trp Leu Thr Ala Phe Glu Lys Asn Pro Gln Asn Ala Glu Val Phe Tyr  
 325 330 335  
 His Met Cys Lys Phe Phe Ile Leu Gln Asn Arg Gly Asp Asn Leu Leu  
 340 345 350  
 Pro Phe Leu Arg Lys Phe Ile Ala Ser Phe Phe Lys Pro Gly Phe Glu  
 355 360 365  
 Lys Tyr Asn Asn Leu Asp Leu Phe Arg Tyr Leu Leu Asn Ile Pro Gly  
 370 375 380  
 Pro Ile Asp Ile Pro Ser Arg Leu Cys Lys Gly Asn Phe Asp Asp Asp  
 385 390 395 400  
 Met Phe Asn His Gln Val Pro Tyr Leu Trp Leu Ile Tyr Cys Leu Cys  
 405 410 415  
 His Pro Leu Gln Ser Ser Ile Lys Glu Thr Val Glu Ala Tyr Glu Ala  
 420 425 430  
 Ala Leu Gly Val Ala Met Arg Cys Asp Ile Val Gln Lys Ile Trp Met  
 435 440 445  
 Asp Tyr Leu Val Phe Ala Asn Asn Arg Ala Ala Gly Ser Arg Asn Lys  
 450 455 460  
 Val Gln Glu Phe Lys Phe Phe Thr Asp Leu Val Asn Arg Cys Leu Val  
 465 470 475 480  
 Thr Val Pro Ala Arg Tyr Pro Ile Pro Phe Ser Ser Ala Asp Tyr Trp  
 485 490 495

## 4307

Ser Asn Tyr Glu Phe His Asn Arg Val Ile Phe Phe Tyr Leu Ser Cys  
 500 505 510

Val Pro Lys Thr Gln His Ser Lys Thr Leu Glu Arg Phe Cys Ser Val  
 515 520 525

Met Pro Ala Asn Ser Gly Leu Ala Leu Arg Leu Leu Gln His Glu Trp  
 530 535 540

Glu Glu Ser Asn Val Gln Ile Leu Lys Leu Gln Ala Lys Met Phe Thr  
 545 550 555 560

Tyr Asn Ile Pro Thr Cys Leu Ala Thr Trp Lys Ile Ala Ile Ala Ala  
 565 570 575

Glu Ile Val Leu Lys Gly Gln Arg Glu Val His Arg Leu Tyr Gln Arg  
 580 585 590

Ala Leu Gln Lys Leu Pro Leu Cys Ala Ser Leu Trp Lys Asp Gln Leu  
 595 600 605

Leu Phe Glu Ala Ser Glu Gly Gly Lys Thr Asp Asn Leu Arg Lys Leu  
 610 615 620

Val Ser Lys Cys Gln Glu Ile Gly Val Ser Leu Asn Glu Leu Leu Asn  
 625 630 635 640

Leu Asn Ser Asn Lys Thr Glu Ser Lys Asn His  
 645 650

<210> 4733

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

## 4308

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4733

Arg	Ala	Pro	Ser	Phe	Lys	Lys	Leu	Xaa	Gly	Xaa	Pro	Pro	Xaa	Gly	Xaa
1				5					10					15	

Xaa	Arg	Glu	Xaa	Ser	Gly	Xaa	Arg	Xaa	Arg	Pro	Gln	Ser	Ala	Arg	Ala
		20						25					30		

Ala	Met	Ala	Leu	Leu	Leu	Ser	Val	Leu	Arg	Val	Leu	Leu	Gly	Gly	Phe
		35					40					45			

Phe	Ala	Leu	Val	Gly	Leu	Ala	Lys	Leu	Ser	Glu	Glu	Ile	Ser	Ala	Pro
	50					55					60				

Val	Ser	Glu	Arg	Met	Asn	Ala	Leu	Phe	Val	Gln	Phe	Ala	Glu	Val	Phe
65					70					75					80

Pro	Leu	Lys	Val	Phe	Gly	Tyr	Gln	Pro	Asp	Pro	Leu	Lys	Leu	Pro	Asn
			85					90						95	

Ser	Cys	Gly	Leu	Ser	Gly	Thr	Ala	Gly	Trp	Val	Ala	Ala	Gly	His	Gly
		100						105					110		

Pro	Thr	Asp	Ala	Ala	Arg	Asp	Gln
	115						120

## 4309

&lt;210&gt; 4734

&lt;211&gt; 244

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (232)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4734

Ser	Thr	Phe	Asp	Lys	Gly	Tyr	Gly	Lys	Tyr	Phe	Ala	Ala	Gly	Glu	Lys
1				5				10						15	

Tyr	His	Thr	Ser	Ser	Val	Phe	His	Lys	Ala	Gln	Arg	Ala	Arg	Trp	Lys
			20					25					30		

Asn	Arg	Arg	Ser	Trp	Arg	Leu	Ser	Gly	Val	His	Trp	Ser	Pro	Ile	Phe
			35				40					45			

Cys	Arg	Ile	Ser	Ala	Leu	Lys	Val	Gly	Ala	Asp	Leu	Ser	His	Val	Phe
	50					55					60				

Cys	Ala	Ser	Ala	Ala	Ala	Pro	Val	Ile	Lys	Ala	Tyr	Ser	Pro	Glu	Leu
65					70					75					80

Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn	Ala	Val	His	Glu	Val	Glu
				85					90					95	

Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val	Val	Gly	Pro	Gly	Leu	Gly
		100						105					110		

Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln	Gly	Ile	Leu	Glu	Val	Ser
	115						120					125			

Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp	Ala	Asp	Gly	Leu	Trp	Xaa
	130					135					140				

Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly	Tyr	Arg	Lys	Ala	Val	Leu
145					150					155					160

Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu	Tyr	Asp	Ala	Val	Leu	Arg
				165					170					175	

## 4310

Gly Pro Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser  
 180 185 190  
 Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile  
 195 200 205  
 Leu Ser Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser  
 210 215 220  
 Ala Gly Val Glu Gly Lys Gly Xaa Ser Cys Arg Ala Pro Trp Ala Ser  
 225 230 235 240  
 Trp Tyr Thr Gly

<210> 4735  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 4735  
 Arg Asn Lys Ser Gln Met Gln Arg Tyr Asn Phe His Tyr Leu Lys Tyr  
 1 5 10 15  
 Ile Val His Phe Tyr Arg Thr Cys Asp Tyr Ser Arg Met Ile Arg Met  
 20 25 30  
 Val Leu Ala Tyr Gly Glu Leu Leu Leu Thr Val Ser Ala Glu Ile  
 35 40 45  
 Leu Phe Gln Trp Thr Asn Ile Val Ala Trp Gln Gln Met Pro Thr Phe  
 50 55 60  
 Cys Gly Ile Ala Ala Asn Leu Gln Glu Thr Leu Val Gly Phe Ser Phe  
 65 70 75 80  
 Cys Phe Leu Cys Phe Phe Pro Leu Leu Leu Asn Gln Gln Gly Trp Lys  
 85 90 95  
 Glu Gly Arg Glu Val Met Asn Tyr Ser Phe Gln  
 100 105

<210> 4736  
 <211> 78  
 <212> PRT  
 <213> Homo sapiens

## 4311

&lt;400&gt; 4736

Val Val Ser Cys Gly Val Phe Phe Lys Lys Phe Asp Leu Ala Phe Ile  
 1 5 10 15

Phe Ser Ile Leu Phe Pro Ile Lys Ser Met Gln Ile Ile Cys Pro Lys  
 20 25 30

Leu Ser Ser Ser Ser Asp Ser Ala Phe Val Leu Cys Gln Ser His Phe  
 35 40 45

His Leu Leu Pro Trp Phe His Arg Ser Phe Val Ser Trp Ala Ser Arg  
 50 55 60

Lys Ile Lys Leu Tyr Leu Phe Cys Ile Cys Glu Met Phe Lys  
 65 70 75

&lt;210&gt; 4737

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (164)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4737

Gly His Ser Glu Trp Val Ser Cys Val Arg Phe Ser Pro Asn Ser Ser  
 1 5 10 15

Asn Pro Ile Ile Val Ser Cys Gly Trp Asp Lys Leu Val Lys Val Trp  
 20 25 30

Asn Leu Ala Asn Cys Lys Leu Lys Thr Asn His Ile Gly His Thr Gly  
 35 40 45

Tyr Leu Asn Thr Val Thr Val Ser Pro Asp Gly Ser Leu Cys Ala Ser  
 50 55 60

Gly Gly Lys Asp Gly Gln Ala Met Leu Trp Asp Leu Asn Glu Gly Lys  
 65 70 75 80

His Leu Tyr Thr Leu Asp Gly Gly Asp Ile Ile Asn Ala Leu Cys Phe  
 85 90 95

Ser Pro Asn Arg Tyr Trp Leu Cys Ala Ala Thr Gly Pro Ser Ile Lys  
 100 105 110



## 4312

Ile Trp Asp Leu Glu Gly Lys Ile Ile Val Asp Glu Leu Lys Gln Glu  
 115 120 125

Val Ile Ser Thr Ser Ser Lys Ala Glu Pro Pro Gln Cys Thr Ser Leu  
 130 135 140

Ala Trp Ser Ala Asp Gly Gln Thr Leu Phe Ala Gly Tyr Thr Asp Asn  
 145 150 155 160

Leu Val Arg Xaa Gly Ser Asp His Trp Thr Arg  
 165 170

<210> 4738

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4738

Thr Pro Arg Asp Leu Val Cys Leu Gly Leu Ser Ser Ile Val Gly Val  
 1 5 10 15

Trp Tyr Leu Leu Arg Lys His Trp Ile Ala Asn Asn Leu Phe Gly Leu  
 20 25 30

Ala Phe Ser Leu Asn Gly Val Glu Leu Leu His Leu Asn Asn Val Ser  
 35 40 45

Thr Gly Cys Ile Leu Leu Gly Gly Leu Phe Ile Tyr Asp Val Phe Trp  
 50 55 60

Val Phe Gly Thr Asn Val Met Val Thr Val Ala Lys Ser Phe Glu Ala  
 65 70 75 80

Pro Ile Lys Leu Val Phe Pro Gln Asp Leu Leu Glu Lys Gly Leu Glu  
 85 90 95

Ala Asn Asn Phe Ala Met Leu Gly Leu Gly Asp Val Val Ile Pro Gly  
 100 105 110

Ile Phe Ile Ala Leu Leu Leu Arg Phe Asp Ile Ser Leu Lys Lys Asn  
 115 120 125

Thr His Thr Tyr Phe Tyr Thr Ser Phe Ala Ala Tyr Ile Phe Gly Leu  
 130 135 140

Gly Leu Thr Ile Phe Ile Met His Ile Phe Lys His Ala Gln Leu  
 145 150 155

## 4313

&lt;210&gt; 4739

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4739

Tyr	Lys	Tyr	Arg	Glu	Glu	Val	Ser	Met	Asn	Leu	Xaa	Ile	Val	Leu	Ser
1				5					10					15	

Asn	Pro	Leu	Glu	Cys	Gln	Ser	Leu	Lys	Asp	Phe	Ala	Leu	Leu	His	Gln
			20					25					30		

Ile	Thr	Ser	Phe	Ser	Gln	Ile	Pro	Ile	Ser	Val	Ile	Thr	Gly	Ala	Asn
		35					40					45			

Leu	Lys	Val	Leu	Tyr	Ser	Phe	Thr	Thr	Leu	Gln	Ile	Cys	Asn	Ala	Ala
	50					55					60				

Tyr	Asn	Ala	Glu	Glu	His
65					70

&lt;210&gt; 4740

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4740

Thr	Lys	Xaa	Lys	Ser	Gly	Glu	Leu	Ala	Val	Thr	Ser	Thr	Gly	Gly	His
1				5					10					15	

Gly	Arg	Glu	Gly	Ser	Leu	Leu	Glu	Gly	Leu	Pro	Trp	Arg	Leu	Glu	Trp
			20					25					30		

Gly	Leu	Pro	Gly	Arg	Pro	Ala	Phe	His	Pro	Cys	Leu	Pro	His	Pro	Cys
		35					40					45			

His	Arg	Leu	Cys	Thr	Pro	Leu	Asp	Gly	Gly	Ser	Lys	Pro	Gly	Thr	Val
		50				55					60				

## 4314

Pro Val Leu Val Arg Val Ile Ile Met Ile Asn Ile Asn Tyr Asp Ala  
 65 70 75 80

Lys Asn Cys Trp Ala Asn Phe Glu Asp Leu Asn Leu Leu Gln  
 85 90

<210> 4741  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 4741  
 Pro Ser Ser Leu Arg Lys Glu Ser Glu Ser Arg Glu Val Asp Ala Ser  
 1 5 10 15  
 Tyr Leu Leu Glu Arg Pro Ser Ser Val Ser Val Val Val Thr Ala Pro  
 20 25 30  
 Ser Ala Met Ser Phe Ser Ala Thr Ile Leu Phe Ser Pro Pro Ser Gly  
 35 40 45  
 Ser Glu Ala Arg Cys Cys Cys Cys Ala Cys Lys Ser Glu Thr Asn Gly  
 50 55 60  
 Gly Asn Thr Gly Ser Gln Gly Gly Asn Pro Pro Pro Ser Thr Pro Ile  
 65 70 75 80  
 Thr Val Thr Gly His Gly Leu Ala Val Gln Ser Ser Glu Gln Leu Leu  
 85 90 95  
 His Val Ile Tyr Gln Arg Val Asp Lys Ala Val Gly Leu Ala Glu Ala  
 100 105 110  
 Ala Leu Gly Leu Ala Arg Ala Asn Asn Glu Leu Leu Lys Arg Leu Gln  
 115 120 125

<210> 4742  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE

## 4315

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4742

Arg	Lys	Phe	Ser	Leu	Thr	His	Ser	Tyr	Gln	Ala	Ser	Ile	Ile	Gln	Ile
1				5					10					15	

Pro	Lys	Pro	Ile	Ile	Asp	Thr	Thr	Thr	Thr	Thr	Thr	Thr	Thr	Thr	His
			20				25						30		

His	Ala	Asn	Val	Phe	Gly	Lys	His	Cys	Ala	Lys	Ile	Leu	Asn	Lys	Ile
		35					40					45			

Leu	Ala	Ser	Gln	Ile	Gln	Gln	His	Ile	Lys	Lys	Phe	Ile	Xaa	Asn	Asn
	50					55					60				

Gly	Val	Gly	Phe	Val	Pro	Arg	Met	Gln	Gly
65						70			

&lt;210&gt; 4743

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (85)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (145)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4743

Ser	Trp	Ser	Arg	Glu	Arg	Ala	Pro	Ala	Pro	Leu	Trp	Glu	Asp	Arg	Glu
1				5					10					15	

Met	Pro	Val	Leu	Lys	Gln	Leu	Gly	Pro	Ala	Gln	Pro	Lys	Lys	Arg	Pro
			20				25					30			

Asp	Arg	Gly	Ala	Leu	Ser	Ile	Ser	Ala	Pro	Leu	Gly	Asp	Phe	Arg	His
		35					40					45			

## 4316

Thr Leu His Val Gly Arg Gly Gly Asp Ala Phe Gly Asp Thr Ser Phe  
 50 55 60  
 Leu Ser Arg His Gly Gly Gly Pro Pro Pro Ser Pro Gly Arg Pro Pro  
 65 70 75 80  
 Arg Gly Pro Arg Xaa Pro Arg Arg Arg Arg Arg Pro Gln Ser Ala Ala  
 85 90 95  
 Pro Arg Leu Arg Pro Ala Val Pro Ser Pro Gly Ser Gly Ala Ser Cys  
 100 105 110  
 Trp Thr Arg Cys Trp Arg Met Asp Ala Ala Arg Arg Ser Gly Cys Ala  
 115 120 125  
 Ser His Ala Asn Pro Pro Gly Xaa Ala Pro Ala Val Arg His Ala Thr  
 130 135 140  
 Xaa Tyr Thr Met Ala  
 145

&lt;210&gt; 4744

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (162)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4744

Arg Arg Pro Arg Ser Arg Leu Arg Val Thr Ser Val Ser Asp Gln Asn  
 1 5 10 15  
 Asp Arg Val Val Glu Cys Gln Leu Gln Thr His Asn Ser Lys Met Val  
 20 25 30  
 Thr Phe Arg Phe Asp Leu Asp Gly Asp Ser Pro Glu Glu Ile Ala Ala  
 35 40 45  
 Ala Met Val Tyr Asn Glu Phe Ile Leu Pro Ser Glu Arg Asp Gly Phe  
 50 55 60

## 4317

Leu Arg Arg Ile Arg Glu Ile Ile Gln Arg Val Glu Thr Leu Leu Lys  
 65 70 75 80  
 Arg Asp Thr Gly Pro Met Glu Ala Ala Glu Asp Thr Leu Ser Pro Gln  
 85 90 95  
 Glu Glu Pro Ala Pro Leu Pro Ala Leu Pro Val Pro Leu Pro Asp Pro  
 100 105 110  
 Ser Asn Glu Glu Leu Gln Ser Ser Thr Ser Leu Glu His Arg Ser Trp  
 115 120 125  
 Thr Ala Phe Ser Thr Ser Phe Ile Leu Ser Ser Trp Glu Leu Leu Cys  
 130 135 140  
 Leu Leu Gly Asn Pro Phe Ser Pro Gly Thr Pro Ile Phe Pro Arg Val  
 145 150 155 160  
 Pro Xaa Phe Pro Ile Xaa Phe  
 165

&lt;210&gt; 4745

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (247)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4745

Ala Gln Asp Gln Trp Ser Glu Leu Phe Met Asp Ala Leu Gly Pro Phe  
 1 5 10 15  
 Asn Phe Val Leu Val Ser Ser Val Arg Met Gln Gly Val Ile Leu Leu  
 20 25 30  
 Leu Phe Ala Lys Tyr Tyr His Leu Pro Phe Leu Arg Asp Val Gln Thr  
 35 40 45  
 Asp Cys Thr Arg Thr Gly Leu Gly Gly Tyr Trp Gly Asn Lys Gly Gly  
 50 55 60  
 Val Ser Val Arg Leu Ala Ala Phe Gly His Met Leu Cys Phe Leu Asn  
 65 70 75 80  
 Cys His Leu Pro Ala His Met Asp Lys Ala Glu Gln Arg Lys Asp Asn  
 85 90 95

## 4318

Phe Gln Thr Ile Leu Ser Leu Gln Gln Phe Gln Gly Pro Gly Ala Gln  
 100 105 110  
 Gly Ile Leu Asp His Asp Leu Val Phe Trp Phe Gly Asp Leu Asn Phe  
 115 120 125  
 Arg Ile Glu Ser Tyr Asp Leu His Phe Val Lys Phe Ala Ile Asp Ser  
 130 135 140  
 Asp Gln Leu His Gln Leu Trp Glu Lys Asp Gln Leu Asn Met Ala Lys  
 145 150 155 160  
 Asn Thr Trp Pro Ile Leu Lys Gly Phe Gln Glu Gly Pro Leu Asn Phe  
 165 170 175  
 Ala Pro Thr Phe Lys Phe Asp Val Gly Thr Asn Lys Tyr Asp Thr Ser  
 180 185 190  
 Ala Lys Lys Arg Lys Pro Ala Trp Thr Asp Arg Ile Leu Trp Lys Val  
 195 200 205  
 Lys Ala Pro Gly Gly Gly Pro Ser Pro Ser Gly Arg Lys Ser His Arg  
 210 215 220  
 Leu Gln Val Thr Gln His Ser Tyr Arg Ser His Met Glu Tyr Thr Val  
 225 230 235 240  
 Ser Asp His Lys Pro Val Xaa Ala Gln Phe Leu Leu Gln Phe Ala Phe  
 245 250 255  
 Gln Gly Arg His Ala Thr Gly Ala Ala Gly Gly Gly Gln Met Ser Gly  
 260 265 270  
 Cys Gly Pro Ser Arg Arg Trp  
 275

&lt;210&gt; 4746

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4746

Pro Met Ala Leu Ala Lys Thr Ala Ile Leu Val Arg Leu Ser Tyr Phe

## 4319

1				5					10					15	
Leu	Phe	Ile	Asp	Thr	Ser	Thr	Xaa	Thr	Ala	Phe	Leu	Ser	Ser	Val	Asp
			20					25					30		
Leu	His	Thr	His	Cys	Ser	Tyr	Gln	Leu	Met	Leu	Pro	Glu	Ala	Ile	Ala
		35					40					45			
Ile	Val	Cys	Ser	Pro	Lys	His	Lys	Asp	Thr	Gly	Ile	Phe	Arg	Leu	Thr
	50					55					60				
Asn	Ala	Gly	Met	Leu	Glu	Val	Ser	Ala	Cys	Lys	Lys	Lys	Gly	Phe	His
65					70					75					80
Pro	His	Thr	Lys	Glu	Pro	Arg	Leu	Phe	Ser	Ile	Cys	Lys	His	Val	Leu
				85					90					95	
Val	Lys	Asp	Ile	Lys	Ile	Ile	Val	Leu	Asp	Leu	Arg				
			100					105							

<211> 84

<213> Homo sapiens

Lys Glu Met Val Ile Leu Trp Thr Met Glu Thr Ser Ser Glu Tyr Ala  
1 5 10 15

Asp Phe Pro Leu Leu Thr Leu Pro Ser Leu Trp Leu Leu Leu Pro Asp  
20 25 30

Lys Gly Gln Gly His Leu Lys Thr Leu Pro Pro Val Gly Phe Gly Val  
35 40 45

Thr Gly Ala Ser Ala Cys Ser His Ile Phe Gln Lys Gly Ser Ala Leu  
50 55 60

Arg Thr Ser Leu Tyr Leu Gly Phe Leu Ile Pro Leu Ala Val Leu Thr  
65 70 75 80

Ser Arg Glu Thr

<211> 65

&lt;212&gt; PRT



## 4320

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4748

Met	Phe	Lys	Leu	Tyr	Ser	Ser	Leu	Ala	Arg	Met	Xaa	Asn	Thr	Cys	Ala
1				5					10					15	

Leu	Lys	Ala	Asn	Arg	Glu	Arg	Val	His	Asn	Ile	Leu	Gln	Xaa	Leu	Lys
			20					25					30		

His	Asn	Leu	Xaa	His	His	Leu	Pro	Leu	Ala	Asn	Ile	Pro	Ser	Gln	Leu
		35					40					45			

Phe	Ser	Arg	Glu	Glu	Pro	Phe	Lys	Leu	Trp	Ser	Ser	Ile	Tyr	Tyr	Phe
	50					55					60				

His  
65

<210> 4749

<211> 27

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4749

**4321**

Arg Asn Ala Lys Val Gly Xaa Gly Val Val Ala His Ala Cys Gly Pro  
 1 5 10 15

Gly Cys Leu Gly Gly Trp Xaa Gly Arg Ile Ala  
 20 25

<210> 4750

<211> 118

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4750

Ser Ser Tyr Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys Val Thr Glu  
 1 5 10 15

Ser Ala Ser Val Xaa Gln Ser Gln Asp Val Ser Gly Ser Glu Asp Thr  
 20 25 30

Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val Phe Asp Asn  
 35 40 45

Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn Asp Pro Lys  
 50 55 60

Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser Ser Gln Ser  
 65 70 75 80

Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu Glu Ser Gln  
 85 90 95

Ile Asn Glu His Leu Asp Trp Cys Leu Glu Gly Asp Ser Ile Lys Val  
 100 105 110

Xaa Ser Glu Glu Ser Leu  
 115

<210> 4751

## 4322

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4751

Pro	Thr	Arg	Pro	Pro	Gln	Ala	Asn	Arg	Gly	Val	Val	Arg	Trp	Glu	Tyr
1				5					10					15	

Phe	Arg	Leu	Arg	Pro	Leu	Arg	Phe	Arg	Ala	Pro	Ala	Leu	Arg	Leu	Gln
		20						25					30		

Lys	Ser	Gln	Ser	Ser	Asp	Leu	Leu	Glu	Arg	Glu	Arg	Glu	Ser	Val	Leu
		35					40					45			

Arg	Arg	Glu	Gln	Glu	Val	Xaa	Glu	Glu	Arg	Arg	Asn	Ala	Leu	Phe	Pro
		50				55					60				

Glu	Val	Phe	Ser	Pro	Thr	Pro	Asp	Glu	Asn	Ser	Asp	Gln	Asn	Ser	Arg
65					70					75					80

Ser	Ser	Ser	Gln	Ala	Ser	Gly	Ile	Thr	Gly	Ser	Tyr	Ser	Val	Ser	Glu
				85					90					95	

Ser	Pro	Phe	Phe	Ser	Pro	Ile	His	Leu	His	Ser	Asn	Val	Ala	Trp	Thr
			100					105					110		

Val	Glu	Asp	Xaa	Val	Asp	Ser	Ala	Pro	Pro	Gly	Gln	Arg	Lys	Lys	Glu
		115					120					125			

Gln	Trp	Tyr	Ala	Gly	Ile	Asn	Pro	Ser	Asp	Gly	Ile	Asn	Ser	Glu	Val
	130					135					140				

Leu	Glu	Ala	Ile	Arg	Val	Thr	Arg	His	Lys	Asn	Ala	Met	Ala	Glu	Arg
145					150					155					160

Trp	Glu	Ser	Arg	Ile	Tyr	Ala	Ser	Glu	Glu	Asp	Asp
				165						170	

&lt;210&gt; 4752

## 4323

<211> 119  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (95)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (100)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 4752  
 Glu Trp Glu Cys Trp Leu Leu Leu Gln Tyr Trp Ser Leu Tyr Thr Val  
   1                  5                  10                  15  
 Leu His Thr Arg Phe Phe Ser Gly Tyr Met Ser Phe Leu Ser Lys Leu  
                   20                  25                  30  
 Cys Gly Ser His Glu Glu Thr Ser Asn Gln Gly Lys Gly Glu Gly Leu  
           35                  40                  45  
 Arg His Lys Thr Tyr Leu Tyr Lys Ile Ser Phe Lys Asn Ser Asn Leu  
       50                  55                  60  
 Gly His Val Lys Phe Phe Tyr Ile Phe Ser Cys Leu Asn Leu Ser Ser  
   65                  70                  75                  80  
 Phe Phe Met Leu Cys Ser Ala Arg Lys Cys Gly Glu Met Asp Xaa Gly  
                   85                  90                  95  
 Gly Cys Gly Xaa Asp Arg Trp Leu Gly Ser Thr Cys Leu Cys Leu Phe  
                   100                  105                  110  
 Pro Phe Met Cys Ser Cys Val  
       115

<210> 4753  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

## 4324

&lt;400&gt; 4753

Xaa Gly Arg Ala Trp Val Met Ala Ala Pro Gly Ala Leu Leu Val Met  
 1 5 10 15

Gly Val Ser Gly Ser Gly Lys Ser Thr Val Gly Ala Leu Leu Ala Ser  
 20 25 30

Glu Leu Gly Trp Lys Phe Tyr Asp Ala Asp Asp Tyr His Pro Glu Glu  
 35 40 45

Asn Arg Arg Lys Met Gly Lys Gly Ile Pro Leu Asn Asp Gln Asp Arg  
 50 55 60

Ile Pro Trp Leu Cys Asn Leu His Asp Ile Leu Leu Arg Asp Val Ala  
 65 70 75 80

Ser Gly Gln Arg Val Val Leu Ala Cys Ser Ala Leu Lys Lys Thr Tyr  
 85 90 95

Arg Asp Ile Leu Thr Gln Gly Lys Asp Gly Val Ala Leu Lys Cys Glu  
 100 105 110

Glu Ser Gly Lys Glu Ala Lys Gln Ala Glu Met Gln Leu Leu Val Val  
 115 120 125

His Leu Ser Gly Ser Phe Glu Val Ile Ser Gly Arg Leu Leu Lys Arg  
 130 135 140

Glu Gly His Phe Met Pro Pro Glu Leu Leu Gln Ser Gln Phe Glu Thr  
 145 150 155 160

Leu Glu Pro Pro Ala Ala Pro Glu Asn Phe Ile Gln Ile Ser Val Asp  
 165 170 175

Lys Asn Val Ser Glu Ile Ile Ala Thr Ile Met Glu Thr Leu Lys Met  
 180 185 190

Lys

&lt;210&gt; 4754

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (182)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

## 4325

&lt;400&gt; 4754

Gln Asp His Gly Ala Trp Leu Arg Gly Gly Asp Val Trp Leu Asp Ser  
 1 5 10 15

Cys Arg Phe Ala Asp Asn Gly Ile Gly Leu Thr Leu Ala Ser Gly Gly  
 20 25 30

Thr Phe Pro Tyr Asp Asp Gly Ser Lys Gln Glu Ile Lys Asn Ser Leu  
 35 40 45

Phe Val Gly Glu Ser Gly Asn Val Gly Thr Glu Met Met Asp Asn Arg  
 50 55 60

Ile Trp Gly Pro Gly Gly Leu Asp His Ser Gly Arg Thr Leu Pro Ile  
 65 70 75 80

Gly Gln Asn Phe Pro Ile Arg Gly Ile Gln Leu Tyr Asp Gly Pro Ile  
 85 90 95

Asn Ile Gln Asn Cys Thr Phe Arg Lys Phe Val Ala Leu Glu Gly Arg  
 100 105 110

His Thr Ser Ala Leu Ala Phe Arg Leu Asn Asn Ala Trp Gln Ser Cys  
 115 120 125

Pro His Asn Asn Val Thr Gly Ile Ala Phe Glu Asp Val Pro Ile Thr  
 130 135 140

Ser Arg Val Phe Phe Gly Glu Pro Gly Pro Trp Phe Asn Gln Leu Asp  
 145 150 155 160

Met Asp Gly Asp Lys Thr Ser Val Phe His Asp Val Asp Gly Ser Val  
 165 170 175

Ser Glu Tyr Pro Gly Xaa Tyr Leu Arg Arg Met Thr Thr Gly Trp Ser  
 180 185 190

Gly Thr

&lt;210&gt; 4755

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4755

Ile Arg His Glu Lys Asp Arg Gly Pro Arg Arg Ser Val Ser Phe Pro  
 1 5 10 15

## 4326

Arg Ala Leu Ser Gly Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser  
 20 25 30  
 Gly Ser His Leu Asn Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly  
 35 40 45  
 Ala Ala Ser Thr Ala Glu Glu Ala Ala Lys Lys Lys Arg Arg Lys Lys  
 50 55 60  
 Lys Lys Ser Lys Gly Pro Ser Ala Ala Gly Glu Gln Glu Pro Asp Lys  
 65 70 75 80  
 Glu Ser Gly Ala Ser Val Asp Glu Val Ala Arg Gln Leu Glu Arg Ser  
 85 90 95  
 Ala Leu Glu Asp Lys Glu Arg Asp Glu Asp Asp Glu Asp Gly Asp Gly  
 100 105 110  
 Asp Gly Asp Gly Ala Thr Gly Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 115 120 125  
 Arg Gly Pro Lys Val Gln Thr Asp Pro Pro Ser Val Pro Ile Cys Asp  
 130 135 140  
 Leu Tyr Pro Asn Gly Val Phe Pro Lys Gly Gln Glu Cys Glu Tyr Pro  
 145 150 155 160  
 Pro Thr Gln Asp Gly Arg Thr Ala Ala Trp Arg Thr Thr Ser Glu Glu  
 165 170 175  
 Lys Lys Ala Leu Asp Gln Ala Ser Glu Glu Ile Trp Asn Asp Phe Arg  
 180 185 190  
 Glu Ala Ala Glu Ala His Arg Gln Val Arg Lys Tyr Val Met Ser Trp  
 195 200 205  
 Ile Lys Pro Gly Met Thr Met Ile Glu Ile Cys Glu Lys Leu Glu Asp  
 210 215 220  
 Cys Ser Arg Lys Leu Ile Lys Glu Asn Gly Leu Asn Ala Gly Leu Ala  
 225 230 235 240  
 Phe Pro Thr Gly Cys Ser Leu Asn Asn Cys Ala Ala His Tyr Thr Pro  
 245 250 255  
 Asn Ala Gly Asp Thr Thr Val Leu Gln Tyr Asp Asp Ile Cys Lys Ile  
 260 265 270  
 Asp Phe Gly Thr His Ile Ser Gly Arg Ile Ile Asp Cys Ala Phe Thr  
 275 280 285

## 4327

Val Thr Phe Asn Pro Lys Tyr Asp Thr Leu Leu Lys Ala Val Lys Asp  
 290 295 300  
 Ala Thr Asn Thr Gly Ile Lys Cys Ala Gly Ile Asp Val Arg Leu Cys  
 305 310 315 320  
 Asp Val Gly Glu Ala Ile Gln Glu Val Met Glu Ser Tyr Glu Val Glu  
 325 330 335  
 Ile Asp Gly Lys Thr Tyr Gln Val Lys Pro Ile Arg Asn Leu Asn Gly  
 340 345 350  
 His Ser Ile Gly Gln Tyr Arg Ile His Ala Gly Lys Thr Val Pro Ile  
 355 360 365  
 Val Lys Gly Gly Glu Ala Thr Arg Met Glu Glu Gly Glu Val Tyr Ala  
 370 375 380  
 Ile Glu Thr Phe Gly Ser Thr Gly Lys Gly Val Val His Asp Asp Met  
 385 390 395 400  
 Glu Cys Ser His Tyr Met Lys Asn Phe Asp Val Gly His Val Pro Ile  
 405 410 415  
 Arg Leu Pro Arg Thr Lys His Leu Leu Asn Val Ile Asn Glu Asn Phe  
 420 425 430  
 Gly Thr Leu Ala Phe Cys Arg Arg Trp Leu Asp Arg Leu Gly Glu Ser  
 435 440 445  
 Lys Tyr Leu Met Ala Leu Lys Asn Leu Cys Asp Leu Gly Ile Val Asp  
 450 455 460  
 Pro Tyr Pro Pro Leu Cys Asp Ile Lys Gly Ser Tyr Thr Ala Gln Phe  
 465 470 475 480  
 Glu His Thr Ile Leu Leu Arg Pro Thr Cys Lys Glu Val Val Ser Arg  
 485 490 495  
 Gly Asp Asp Tyr  
 500

&lt;210&gt; 4756

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4756



## 4328

Ala Leu Ala Ile Ala Glu Lys Ser Gln Glu Phe Leu Glu Ala Asp Asn  
 1                      5                      10                      15

Arg Gln Leu Pro Asn Gly Val Tyr Thr Thr Ala Glu Gln Arg Pro Asn  
                     20                      25                      30

Ala Tyr Ile Pro Glu Ala Asp Ala Thr Leu Pro Leu Pro Lys Pro Tyr  
                     35                      40                      45

Gly Ala Leu Ala Pro Phe Lys Pro Ser Glu Pro Gly Ala Asn Met Arg  
                     50                      55                      60

His Ile Arg Lys Pro Val Ile Lys Pro Val Glu Ile  
                     65                      70                      75

&lt;210&gt; 4757

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (72)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4757

Met Ala Tyr Thr Ile Pro Val Ile Ile Val Gly Gly Cys Trp Phe Ala  
 1                      5                      10                      15

Trp Arg His Gln Ser Ser Asp Glu Xaa Ile Asp Tyr Phe Ala Val Ser  
                     20                      25                      30

Leu Arg Ile Ile Gly Val Leu Ala Leu Ile Leu Thr Ser Cys Gly Leu  
                     35                      40                      45

## 4329

Ala Ala Ile Asn Ala Asp Xaa Ile Trp Tyr Phe Ala Ser Gly Gly Val  
 50 55 60

Xaa Gly Ser Leu Leu Ser Thr Xaa Leu Gln Pro Leu Leu His Ser Ser  
 65 70 75 80

Gly Gly Thr Ile Ala Leu Leu Cys Val Trp Ala Ala Gly Leu Thr Leu  
 85 90 95

Phe Thr Gly Trp Ser Trp Val Thr Leu Leu Lys Asn Ser Ala Ala Gly  
 100 105 110

Phe

&lt;210&gt; 4758

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4758

Thr Ile Cys Val Val Arg Gly Ala Thr Ala Ile Ser Ala Glu Leu Gly  
 1 5 10 15

Gly Ile Ser Thr Thr Phe Leu Ser Ala Glu Ala Phe Pro Pro Thr Leu  
 20 25 30

Met Leu Phe Asn Ser Val Leu Arg Gln Pro Gln Leu Gly Val Leu Arg  
 35 40 45

Asn Gly Trp Ser Ser Gln Tyr Pro Leu Gln Ser Leu Leu Thr Gly Tyr  
 50 55 60

Gln Cys Ser Gly Asn Asp Glu His Thr Ser Tyr Gly Glu Thr Gly Val  
 65 70 75 80

Pro Val Pro Pro Phe Gly Cys Thr Phe Ser Ser Ala Pro Asn Met Glu  
 85 90 95

His Val Leu Ala Val Ala Asn Glu Glu Gly Phe Cys Ser Ile Val  
 100 105 110

&lt;210&gt; 4759

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4330

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (144)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4759

Ala	Gly	Glu	Arg	Asp	Gln	Gly	Arg	Arg	Arg	Gly	Glu	Ser	Arg	Glu	Gly
1				5					10					15	

Trp	Ser	Phe	Gly	Glu	Ser	Leu	Trp	Lys	Met	Ala	Pro	Val	Val	Thr	Gly
			20					25					30		

Lys	Phe	Gly	Glu	Arg	Pro	Pro	Pro	Lys	Arg	Leu	Thr	Arg	Glu	Ala	Met
		35					40					45			

Arg	Asn	Tyr	Leu	Lys	Glu	Arg	Gly	Asp	Gln	Thr	Val	Leu	Ile	Leu	His
	50					55					60				

Ala	Lys	Val	Ala	Gln	Lys	Ser	Tyr	Gly	Asn	Glu	Lys	Arg	Phe	Phe	Cys
65					70					75					80

Pro	Pro	Pro	Cys	Val	Tyr	Leu	Met	Gly	Ser	Gly	Trp	Lys	Lys	Lys	Lys
			85						90					95	

Glu	Gln	Met	Glu	Arg	Asp	Gly	Cys	Ser	Glu	Gln	Glu	Ser	Gln	Pro	Cys
		100						105					110		

Ala	Phe	Ile	Gly	Xaa	Gly	Asn	Ser	Asp	Gln	Glu	Met	Gln	Gln	Leu	Asn
		115					120					125			

Leu	Gly	Arg	Lys	Xaa	Leu	Leu	His	Ser	Gln	Thr	Leu	Tyr	Ile	Ser	Xaa
	130					135					140				

Ser	Ala	Ser	Glu	Asp	Phe	His	Val	Val	Cys	Lys	Val	Phe
145					150					155		

&lt;210&gt; 4760

&lt;211&gt; 60

## 4331

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4760

Leu Arg Met Cys Glu Lys Leu Thr Glu Pro Asp Ala Cys Cys Tyr Phe  
1 5 10 15

Thr Ala Met Ser Leu Phe Leu Ser Thr Leu Lys Ile Phe Phe Leu Phe  
20 25 30

Asn Val Val Tyr Phe Gly Leu Arg Asn Asn Cys Ser Val Glu Asn Asn  
35 40 45

Pro Leu Ser Glu Lys Lys Val Ala Thr Thr Ser Phe  
50 55 60

&lt;210&gt; 4761

&lt;211&gt; 460

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (303)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (305)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (436)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (442)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (444)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (447)

## 4332

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (448)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 4761

Leu	Asp	Ala	Pro	Leu	Asp	Thr	Phe	Asn	Gly	Asn	Arg	Phe	Ala	Leu	Arg
1				5					10					15	

Leu	Thr	Ala	Ile	Phe	Leu	Gln	Pro	Leu	Gly	Lys	Leu	Val	Val	Arg	Ala
			20					25					30		

Leu	His	Gly	Pro	Trp	Asn	Thr	Asp	Ser	Pro	Asp	Asn	Leu	Glu	Glu	Val
		35				40					45				

Lys	Phe	Leu	Leu	His	Met	Trp	Val	Ala	Leu	Phe	Tyr	Ser	Asn	Gln	Asn
	50					55					60				

Lys	Ile	Ile	Arg	Ser	Ser	Arg	Lys	Val	Val	Glu	His	Ser	Asn	Pro	Ala
65					70					75					80

Lys	Tyr	Val	Ser	Ile	Asn	Ser	Thr	Leu	Glu	Ser	Cys	Glu	Leu	Arg	Glu
				85					90					95	

Ile	Glu	Glu	Ser	Leu	Gly	Leu	Glu	Lys	Cys	Ser	Ala	Asp	Ser	Leu	Leu
			100					105					110		

Glu	Thr	Asn	Glu	Ile	Ser	Arg	Ala	His	Ala	Ala	Glu	Val	Ser	Phe	Arg
		115					120					125			

Asp	Pro	Asn	Cys	Leu	Leu	Pro	Phe	Ile	Lys	Thr	Pro	Leu	Thr	Gln	Gly
	130					135					140				

Leu	Glu	Leu	Cys	Val	Gln	Asn	Glu	Gln	Lys	Lys	Thr	Phe	Ala	Arg	Glu
145					150					155					160

Cys	Asp	Pro	Asp	Thr	Gln	Glu	Asp	Gln	Asn	Phe	Ile	Cys	Ser	Tyr	Asn
				165					170					175	

Asn	Glu	Val	Thr	Gly	Glu	Glu	Ala	Lys	Gln	Glu	Ser	Leu	Glu	Thr	Ser
			180					185					190		

Asn	Leu	Val	Leu	Ser	Gly	Ile	Gly	Ser	Thr	Gln	Thr	Asn	Gly	Pro	Ser
		195					200						205		

Val	Pro	Ser	Glu	Glu	Glu	Ile	Val	Gln	Pro	Leu	Asp	Ser	Thr	Arg	Val
	210					215					220				

Ala	Ser	Tyr	Ser	Gly	Thr	Val	Thr	Gln	Ala	Thr	Phe	Thr	Arg	Thr	Tyr
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## 4333

225		230		235		240
Asp Gly Pro Gly Ser Gln Pro Val Ile Cys Gln Ser Ser Val Tyr Gly						
	245		250		255	
Thr Leu Glu Asn Lys Val Asp Ile Leu Asp Ala Ala Val Gln Thr Lys						
	260		265		270	
Thr Gly Thr Leu Gln Asp Leu Ile Gln His Gly Ser Pro Ile Asn Asn						
	275		280		285	
Glu Cys His Pro Ser Leu Glu Arg Lys Asp Asp Asn Met Gly Xaa Ala						
	290		295		300	
Xaa Ile Asn Pro Glu Pro Ile Thr Leu Thr Phe Glu Lys Asn Ala His						
305		310		315		320
Val Pro Ile Gln Thr Glu Gly Val Asn Thr Ala Asp Glu Pro Thr Thr						
	325		330		335	
Phe Lys Lys Glu Leu Ile Lys Gln Val Ser Pro Ala Ala Ser Leu Arg						
	340		345		350	
His Pro Val Ser Thr Ser Glu Asn Ala Arg Thr Gln Gly Leu Arg Asp						
	355		360		365	
Ile Pro Ser Leu Val Val Ala Gly Gln Lys Gly Thr Lys Tyr Leu Cys						
	370		375		380	
Ala Ser Ser Val Gly Gly Glu Thr Leu Asp Lys Ala Val Cys Ser Leu						
385		390		395		400
Gln Lys Glu Thr Pro Leu Pro Val Ser Leu Pro Ser Asp Lys Thr Met						
	405		410		415	
Val Met Glu Ala Leu Ser Leu Ala Lys Ser Ser Ser His Leu Ser Pro						
	420		425		430	
Ser Glu Glu Xaa Arg Cys Thr Gln Asp Xaa Leu Xaa Gln Thr Xaa Xaa						
	435		440		445	
Leu Leu Gly Leu Ser Leu Glu Arg Leu Leu Arg Thr						
	450		455		460	

&lt;210&gt; 4762

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

## 4334

&lt;400&gt; 4762

Ala Ser Asp Pro Thr Leu Val Leu Ala Pro Gln Gln Trp Leu Pro Leu  
 1 5 10 15

Thr Leu Ser Arg Arg Trp Leu Gly Gly Gly Tyr Leu Trp Val Ala Gly  
 20 25 30

Lys Gly Val Gly Arg Phe Arg Met Val Gly Gly Thr Glu Val Pro Glu  
 35 40 45

Val Lys Arg Pro Leu Val Leu Thr Gly Leu Thr Arg Ala Trp Thr Leu  
 50 55 60

Gly Ala Val Leu Cys Glu Leu Ala  
 65 70

&lt;210&gt; 4763

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4763

Trp Glu Pro Thr Phe Phe Gly Phe Ser Gly Glu His Asn Ser Lys His  
 1 5 10 15

Pro Leu Gly Ser His Met Tyr Arg Asn Gly Thr Gln Leu Gly His Ser  
 20 25 30

His Gly Leu Pro Arg Pro Gly Met Cys Gly Ala Lys Trp Gly Gln Gly  
 35 40 45

Pro Asp Pro Arg Gly Glu Gly Gly Pro Gln Thr Pro Arg Asp Val Ser  
 50 55 60

Ile Pro Arg Pro Ala Phe Trp Arg His Leu Pro Gly Ala Val Leu Ser  
 65 70 75 80

Gln Gln Ala Trp Gly Glu Ser Leu Val Tyr Ala Gly Asn Arg Val Gln  
 85 90 95

Gly Pro Ser Val Pro Pro Ser Ala Leu Thr Trp Ala Met His Pro Leu  
 100 105 110

Ser Pro Lys His Lys Gln Ala Leu Leu Gln Tyr Gly Ala Arg Thr Gly  
 115 120 125

Val Pro Ser Val Leu Trp Leu  
 130 135

4335

&lt;210&gt; 4764

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 4764

His	Lys	Cys	Phe	Gln	Cys	Phe	Ile	Leu	Ala	Asn	Gly	Phe	Leu	Lys	Val
1				5					10					15	

Ile	Lys	Pro	Phe	Gln	Arg	Asn	Trp	Ser	Asp	Lys	Thr	Phe	Phe	Leu	Val
			20					25					30		

Cys	Leu	Asn	Lys	Ala	Ile	Ser	Glu	Ala	Leu	Leu	Ser	Lys	Met	Thr	Phe
		35					40					45			

Leu	Ser	Phe	Phe	Lys	Thr	Asn	Leu	Leu	Leu	Leu	Glu	Thr	Phe	Cys	Thr
	50					55					60				

Ile	Lys	Gln	Ser	Arg	Arg	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
65					70					75					80

Lys	Arg	Ala	Ala	Ala	Leu	Glu	Asp	Pro	Ser	Leu	Arg	Thr	Arg	Ala	Cys
				85					90					95	

Asp	Val	Ile	Ala	Leu	Leu	Leu	Arg	Xaa	Pro
			100					105	

&lt;210&gt; 4765

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids